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ABSTRACT

Papers and panel discussions contained in this proceedings examine various aspects of educational collaboration and other closely related topics. Titles and authors of the papers, and subjects of the panel discussions, are as follows: (1) "A Look at the Research/Demographics: What Do They Tell us About Integrating Statewide Systems for Teacher Education?" (Judith Lanier); (2) "Some Preliminary Findings of the Study, College: A Report on the Undergraduate Experience in America" (Ernest L. Boyer); (3) "The Responsibility of the University in Building Collaborative and Integrative Systems for Teacher Education" (C. Peter Magrath); (4) "The Stages of Teacher Preparation" (Susan Rosenholtz); (5) "Can the State Be a Positive Force in Building Collaborative and Integrative Systems in Teacher Education?" (Frank Newman); (6) "Teacher Education: A New Vision for the Next Century" (Albert Shanker); (7) Panel Discussion: "Alternative School/College Collaboration Programs"; (8) "Can Collaboration Advance Teacher Education?" (P. Michael Timpane); (9) "The Changing Demographics of the Teaching Force" (Harold L. Hodgkinson); (10) "A Case Study in the Development of Effective Collaboration of Schools and Colleges to Advance the Education of Teachers and Improve the Quality of Education at all Levels" (Eugene M. Hughes); (11) Panel Discussion: "University and School Relations and the Teacher Quality Issue: What has Been Done and What Remains to Be Done?"; (12) "Equity, Access, and Quality Control Issues in Teacher Education" (Tomas A. Arciniega); (13) "Case Study: Career Ladders Legislation in South Carolina" (E. Crosby Lewis); (14) "School/University Partnerships: Promises and Caveats" (John Goodlad); (15) Panel Discussion: "Quality Control Issues in Teacher Education: Can School/College Collaboration Affect Them?"; (16) "The One-Room Satellite School" (Lee Sherman Dryfus); and (17) Panel Discussion: "Has Collaboration Facilitated the Integration of Statewide Systems in Advancing Teacher Education?". (JD)

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School/College Collaboration
and Building Integrated
Teacher Education Systems
Statewide

Proceedings of the
1985 Summer Institute

COUNCIL OF CHIEF STATE SCHOOL OFFICERS

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PARTNERSHIP FOR EXCELLENCE

**School/College Collaboration
and
Building Integrated Teacher Education Systems Statewide**

PROCEEDINGS

**1985 Summer Institute
Council of Chief State School Officers**

**Funded by
THE ANDREW W. MELLON FOUNDATION**

**July 28–August 2, 1985
Delavan, Wisconsin**

**Rebecca Yount
Editor**

**Nancy L. Magurn, Associate Editor
Joseph G. Mannard, Assistant Editor**

FOREWORD

The Council of Chief State School Officers is pleased to present *Partnership for Excellence: School/College Collaboration and Building Integrated Teacher Education Systems Statewide*, the proceedings of its 1985 Summer Institute held in Delavan, Wisconsin.

Each summer the Council of Chief State School Officers (CCSSO), a group composed of the principal official responsible for public schools in each of the fifty states, six territories, and the District of Columbia, conducts a week-long seminar-style institute to provide its members with an opportunity to take a fresh look at the most pressing concerns in our nation's schools, while interacting with foremost scholars and leaders in education.

This year's Summer Institute was funded by the Andrew W. Mellon Foundation as a component of a major grant award to CCSSO to enhance elementary and secondary education through school/college collaboration. More than 100 educators, including some forty chief state school officers, nineteen college and university presidents, policymakers from national education groups, university deans, a state legislator, and coordinators of CCSSO-sponsored collaborative projects that had received funding from the Mellon Foundation, took part in the week's activities.

Speakers addressed key aspects of collaboration: the university's role and the state's role in building collaborative teacher education systems; the organizational dynamics of school/university partnerships; the creation of a university "Center for Excellence in Education" to draw upon the capabilities of an entire university in educating teachers; the problems and nature of the high school-college transition; collaboration among teachers within schools; case studies of alternative school/college collaborative programs; etc.

Others focused on closely related topics—the demographics of the teaching force and the student population, now and future; the evolution of state legislation (South Carolina) to enhance the current teaching force; the development of a master teacher plan as proposed by Albert Shanker of the American Federation of Teachers; university/school interactions and mutual perceptions; teacher testing, retention, and licensure; program accreditation; and the related equity, access, and quality control issues.

Themes running throughout were important to all educators: the impending shortage of teachers; the need to improve status, professionalism, and morale of teachers; the significant characteristics of the exceptional teacher (mastery of knowledge, teaching skill, and character); the "seamless web" view of education from pre-school through postsecondary; the need to identify core curriculum; the primacy of citizenship education; and the compelling need for creativity and involvement on the part of teachers and students. Speakers expressed differing views and perceptions on these many topics and themes, generating considerable feedback and questions, and some controversy.

Therefore, we present these proceedings not to give final answers to the myriad questions before us, but to shed light on the challenges and work ahead. In particular, we hope these proceedings will contribute to the development of collaborative efforts between elementary/secondary and higher education.

I would like to thank the many people and organizations who have made this publication possible: first, the Andrew W. Mellon Foundation, the funder of the CCSSO School/College Collaboration Project, which provided grants to fourteen states for collaborative initiatives

and funds for this institute and the publishing of proceedings. I am very pleased to note that the Mellon Foundation has awarded a second major grant to CCSSO for state-based collaborative efforts, this time with a specific focus on attracting exceptional persons into teaching and improving the current teaching force.

Second, I would like to thank the Wisconsin Department of Public Instruction, in particular State Superintendent Herbert J. Grover and Conference Coordinator Joni Jackson, for all its work in making this Summer Institute a reality. In addition, I would like to thank Re-

becca Yount, the Director of the Mellon School/College Collaboration Project, for her leadership in planning and coordinating this Summer Institute, and for compiling and editing these proceedings. She was assisted in the editing process by Nancy Magurn and Joseph Mannard.

Last, I must not forget the many sponsors and contributors (see Appendix C: Acknowledgments) who donated their time and goods to an exciting and stimulating week of learning, motivating and sharing.

WILLIAM F. PIERCE
EXECUTIVE DIRECTOR
COUNCIL OF CHIEF
STATE SCHOOL OFFICERS

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INTRODUCTION

Rebecca Yount

Director

Mellon Foundation School/College Collaboration Project

The Mellon Foundation School/College Collaboration Project began nearly three years ago in the throes of the report *A Nation at Risk: The Imperative for Educational Reform*. This report, issued by the National Commission on Excellence in Education, outlined the "mediocre educational performance that exists" in our nation today. As a result of a grant from the Andrew W. Mellon Foundation, the Council of Chief State School Officers issued a request for proposals to all state education agencies for programs to enhance and facilitate working relationships between elementary/secondary and postsecondary education to advance educational reform. The collaborative concept, which suggested cooperation between elementary/secondary education and higher education in a broad range of areas as an effective means of improving schooling, had evolved from a dialogue between educators, chief state school officers, university presidents and deans, and others that began several years earlier.

State education agencies responded enthusiastically to the challenge, providing the Council with a wealth of proposals. In the first phase of the project, thirty-nine planning grants of \$2,000 each were awarded. When phase II competition for \$30,000 implementation grants was announced, the Council received 47 proposals! A blue ribbon selection committee awarded grants to fourteen collaborative programs, eleven of which focused on some aspect of teacher quality. Thus, the states addressed this most critical issue in 1983—almost two years before it became the national phenomenon that is now upon us.

Earlier that same year, John E. Sawyer, President of the Andrew W. Mellon Foundation, expressed the need for collaboration in improving teaching education: "As I see it, the chief [state school officers] still face the central responsibility of addressing . . . the critical needs of the elementary schools and junior

highs; and here again they need to let higher education know the kind of teacher preparation they most want at the various levels, or for whole systems."

This project has promoted a rich array of collaborative configurations, involving different kinds of organizations, strategies, and modes. Project components included: an analysis of evaluation models; curriculum development; training for high school counselors; a demonstration school; regional assistance councils and teams to assess needs and coordinate assistance; a mechanism for matching higher education resources with inservice needs; a program for improving the teaching of English; a computerized feedback system to track student achievement; a vocational and technical education system to span high school and college; and more. All of these involved joint efforts between elementary/secondary education and higher education.

Among many other things, this project has promoted the kind of collaboration that can break through the isolation that many teachers, as well students and other school personnel, experience in schools. To illustrate, the Montana project, which focused on improving the accreditation review process, was able to involve teachers on distant reservation lands simply because project staff had travel monies, which had previously been unavailable, to get to those areas.

Several other projects instituted or expanded upon inservice training programs for teachers and other school personnel. One such project in Oregon focused on the implementation of a collaborative statewide system for the continued professional development of school personnel. Involving deans and directors of teacher education programs, teachers, school administrators, and nearly every provost in the state, the project was extraordinarily effective in fostering sustained collaboration. Many participants in that program

said that it was the most effective with which they had ever been involved.

The fourteen projects have advanced many new concepts regarding the collaborative process. First of all, the CCSSO projects expanded beyond collaboration of only schools and colleges to involve parent advocacy groups, state legislators, and university administrators. Second, the use of private funds to advance a state-based policy issue has been an interesting and surprising experiment. In assessing the accomplishments of these projects, the states have described exciting and promising developments in a relatively short 18-month time period. In part this was because the grant monies came along at the right time—on the coattails of several reform reports. But this progress was also enhanced by the relatively unrestricted nature of the project guidelines, which encouraged experimentation and innovation, not to mention some basic risk-taking. The state programs were allowed to make some mistakes and initiate mid-course corrections. They ended up with strategies and processes that were appropriate to their problems.

In many respects the fourteen projects determined the subject matter for the 1985 Summer Institute. Since there was a strong emphasis on teacher issues within these projects, the usefulness of statewide collaboratives in enhancing the quality of teaching was a timely topic. During the Institute itself, the ambience was interactive and dynamic, with successive presentations building upon one another. As one reads these proceedings, this becomes evident.

No introduction to these proceedings would be complete without thanking several people, first of whom is Claire List, our program of-

ficer at the Mellon Foundation. Her support and enthusiasm were primary reasons for this project's success. Also, we are deeply grateful to Gordon Ambach, Commissioner of Education, New York and CCSSO President during 1984–85, for his unfailing help and encouragement, especially during the planning of this Institute. I would like to especially thank William F. Pierce, CCSSO Executive Director, who encouraged creative thinking and innovation in the course of the project. Thanks also go to George Rush and Ken Scott, CCSSO, who helped us tackle the technology that processed these proceedings and helped us through some very difficult times. Last, but certainly not least, thanks go to my assistant, Nancy Magurn, who is the other half of the CCSSO staff, for her gifted service to this publication.

The Mellon project is now in its second major stage, having recently awarded fourteen additional grants to states to either attract exceptional persons into teaching or to improve the current teaching force. The new grantee states are: Alaska, Colorado, Florida, Georgia, Guam, Idaho, Indiana, Maryland, Minnesota, Montana, New York, North Dakota, Utah, and Wisconsin. These programs show very specific emphases such as rural education, urban education, minority teachers, and the professional development of all school personnel as well as faculty.

The first Mellon project was a very new experience for state departments of education. By the end of the second project, these state collaboratives will be serving as seasoned educational reform agents. We have, indeed, come a long way.

WELCOME TO WISCONSIN

Herbert J. Grover
Superintendent of Public Instruction, Wisconsin

The State of Wisconsin and the Department of Public Instruction are pleased to host the Council of Chief State School Officers 1985 Summer Institute. "Escape to Wisconsin" is our tourism motto. We hope you find your "escape" productive and pleasant.

Education in these United States has been under intense scrutiny for more than two years, and we are surely better for it. This summer institute focuses on one of the elements that has emerged as an integral part of school improvement—creating partnerships between our public schools and universities, particularly teacher education programs.

The Mellon Foundation and the Council of

Chief State School Officers recognized the importance of such partnerships prior to our current self-examination. The resulting investigation of collaborative, integrated teacher education systems, evaluated here by the Mellon Project State Coordinators, is sure to have implications for us all.

Our common goal—to provide the best education for every child in our respective states—is an idealistic one. Yet, we must find realistic ways to achieve that goal. School and university cooperation comprises one way of ensuring quality teachers and, ultimately, quality learning experiences.

Welcome to Wisconsin!

WELCOME ADDRESS

William F. Pierce
Executive Director
Council of Chief State School Officers

Good morning, ladies and gentlemen. I want to welcome all of you to our 1985 annual Summer Institute for Chief State School Officers. This is the second time the chiefs have asked others to join them during their annual summer retreat. I therefore want especially to welcome the college and university presidents who have joined us for this meeting.

Some of the college and university presidents who are here for this conference actually joined us for that first joint meeting in Colorado in 1981. That meeting focused on educational issues of mutual concern to elementary, secondary, and postsecondary administrators and was partially funded by the Andrew W. Mellon Foundation. Since that meeting was an historic first, and since the Mellon Foundation is not particularly interested in simply funding conferences, the condition of the grant from Mellon was that the collaboration that began with that meeting—between college and university presidents and chief state school officers—had to continue. It should not end with the 1981 conference and should therefore have some kind of appropriate follow-up.

As a follow-up the presidents and the chiefs met at Yale University in March 1983, as the guests of Bart Giamatti, where attention focused on how cooperative efforts between colleges and schools could be developed to improve the nation's teaching force. Some of the university representatives here today also attended that conference. Indeed, some of our speakers this week were also on the program of either the Colorado Springs or the Yale conference, bringing some continuity from that first program to this one. These two joint efforts then led to this week's conference.

Following the Yale conference, the Council of Chief State School Officers submitted a proposal to the Mellon Foundation. In July 1983, we were awarded a major grant by the Mellon Foundation to enhance and facilitate the working relationships between elementary, secondary, and postsecondary education.

The following September, thirty-nine incentive grants were awarded to as many states, constituting Phase I of this Mellon project. In January 1984, a blue ribbon selection committee awarded implementation grants to fourteen of the forty-seven states which applied. I mention the fact that forty-seven states had applied simply to emphasize that this was clearly a timely issue of concern to all chiefs and to many college and university administrators.

This project will provide and focus on two products: first, the proceedings from this Summer Institute, which will be a document of note. The final report to the Mellon project will be the second product and will constitute the final report of the fourteen implementation projects.

In addition, as a result of this project, we now have within our offices a major data base containing 265 descriptions of school/college collaborative efforts around this country. It is probably the best data base existing anywhere about what you as university and college representatives and you as school representatives are doing together.

Project coordinators from each of the fourteen chosen states are in attendance at this conference and will be a part of the program. During the entire conference the state project coordinators will be available in the south ring every afternoon to describe their projects in more detail for any of you who are interested.

The focus of this conference is the result of the direction of all of those fourteen projects. It is no accident that eleven of the fourteen funded projects focus specifically on one or more aspects of the teacher quality issue, an obvious response to a current major education concern. The Mellon projects cover a wide spectrum of these issues relating to teacher quality, teacher evaluation, inservice training, certification, preservice training, teachers in language arts, laboratory schools, the mission of professional development teachers, and so

on. I think you will be intrigued and impressed by what those fourteen states have been able to accomplish in developing collaborative efforts.

Based on the efforts of those fourteen states, the logical theme of this conference began to emerge. To provide you with that logic, I would like now to turn the podium over to Gordon Ambach, President of the Council of

Chief State School Officers. I will not insult your intelligence by reading his vita and bibliography. I will simply say that because of his responsibilities in New York, where he is not only Commissioner of Education, but the President of the University of the State of New York, he has a particularly special perspective and perception of the issues that we will discuss throughout the coming week.

CONFERENCE OVERVIEW

Gordon M. Ambach
Commissioner of Education, New York
President
Council of Chief State School Officers

To all here in Wisconsin, thank you for such a wonderful welcome and all the arrangements that have been made for us during the course of this week. Those of us who have been involved in presenting summer institutes and other meetings of the chiefs know what it takes to put on this kind of event. I want to say at the outset, Bert [Herbert J. Grover, Superintendent of Public Instruction, Wisconsin], how deeply appreciative we are of all that you've done and also give a special note of thanks to Joni Jackson who has been leading the way by coordinating the effort and making certain this is indeed a very productive summer institute.

One of our major purposes in being together is simply to exchange ideas about the subject of this institute. We will be listening, but we hope there will be a lot of talking. In that spirit, I would like to ask you to do something right now. Take a slip of paper and simply write out, in a minute or two, what you consider to be the principal objective that you would personally like to achieve during this session. If you were to leave here on Friday with one set of ideas about changes in practice in your institution or agency, what would it be? Just take one minute to jot it down. As soon as you finish doing that, I am going to ask you to exchange it with the person next to you and then talk about it for a minute.

Please refer to it at some later time to see whether the objective remained the same and to see whether you got an answer.

It is perfectly obvious to all of our colleagues and guests from institutions of postsecondary education, our Institute for Educational Leadership Fellows, our guest speakers, and those who coordinate the Mellon projects, that once you start the chiefs talking, you don't stop. We genuinely hope that this conference will be in seminar form throughout and that there will be an extensive opportunity for exchange. I hope that you will put those slips aside and, as I said, check them along the way through the

week and see whether you have changed that objective, or whether you are learning more about actions or policy decisions necessary to obtain that objective.

Just a note, especially for our guests at this session, about the pattern of activities of our Council of Chief State School Officers. We tend to come together about four times a year. One of those sessions is in Washington, where we focus on the legislative process at the federal level. Another is a special session, such as we had in Boston in May, which focused on education in the arts. Our summer institute takes place in different parts of the country and focuses on different topics each year. Finally, there is our annual business meeting. It is especially at the summer institute that we come together to learn from one another, to share our common experiences, and to return to our individual settings with learnings from colleagues and guests.

Over the past three years, especially at summer institutes, we have focused on the issues of the general reforms taking place in the states. Last year our concentration was on various school improvement projects and the different activities related directly to elementary and secondary school improvement. Last fall at our annual meeting, our focus was on assessment and evaluation. This coming fall our focus will be the international dimension of education, in part following through the assessment issue as we look at national comparisons of achievement and indicators, the ways in which the schools are involved in promoting international understanding, and the ways in which we can learn from other countries about their educational practices, especially early childhood education and transition of youth to employment.

Then there is this summer institute. It will focus on the relationship between postsecondary institutions—the colleges, the universities—and the schools. In essence, we are seeking to strengthen elementary and second-

ary teaching through creative collaboration between the collegiate and school worlds.

To strengthen the practice of teaching requires simultaneous efforts on many fronts:

The recruitment of new candidates: what kinds of incentives, subsidies, or activities are there?

The preservice preparation: what is the content to be, what are the requirements to be?

The credentials, the licensure, the certification: what are the entry level provisions and the continuing specific requirements?

The conditions of teaching, the salary scales and benefits, the issue of professional status: what is the relationship of those teaching in the elementary and secondary areas to their colleagues at the collegiate level, or to those in other occupational areas?

The classroom and school conditions, the incentives for raising the level of performance by an individual: all of those are part of the conditions of teaching.

And, finally, the issue of the continuance of opportunity for teachers to learn. "One stops teaching when one stops learning," goes the phrase, and we certainly do not pay enough attention to systematically making certain that there is an effective opportunity for learning.

Action on any one of these factors alone may have some impact, but it is clear that one has to deal with this whole array of factors in order to improve the practice of teaching. Reciting that list makes clear that it is essential that the school systems and the postsecondary institutions work in conjunction to make a more effective practice of teaching. That is why we are here—to look specifically at how it's done. To debate, to argue, to fight a bit over certain kinds of practices, to look particularly at what experiences we have had, especially in some of the Mellon-funded projects or in the many other projects that Bill [William Pierce, Executive Director, CCSSO] noted,

that have become catalogued efforts of collaboration.

As we do this, it is especially important for our guests to understand that there is no uniformity of responsibility among the chiefs who are here. All of us have a responsibility for public elementary and secondary education. Some have a responsibility for the education of elementary and secondary children in the non-public schools. Those responsibilities vary a bit. Some of the chiefs have a very direct responsibility for teacher preparation or teacher education. Some of the chiefs have a direct responsibility for certification or licensure. But in some cases they have neither the responsibility for preparation nor particularly for certification. And then some of us have a broader responsibility that has to do with all aspects of postsecondary education as well as elementary and secondary education.

I cite that particularly because each of us, including our guests from the institutions of higher education, will take away from this session a different configuration, a specific application to where his or her state or institution is at this point, and what changes may be in the works for that institution. While we're trying to summarize what might be some specific objectives for us, they will certainly learn from one another about what connections already exist for preparation of teachers, specifically what we have in our Mellon projects.

We also need to assist one another, and especially the Council, as we try to formulate the next proposal for the Mellon Foundation in light of a receptivity expressed by its officials regarding the expansion of certain projects underway or perhaps the addition of other projects. And further, we need to identify recommendations on issues of collaboration that could be made by the Council, either at the federal or state level. So it is with the objective of both individual and corporate gain that we come together.

Bill has noted that we started this effort back in 1981. We are most indebted to the Mellon Foundation for helping us at that point. I would remind you all that 1981 was a couple of years before there was a Commission on Excellence in Education at the national level. It was indeed a couple of years before the series of reports about reforming elementary and secondary education began to spill out. We were at that point targeting this level of collaboration. As these reports evolved in 1983 and

1984, followed by so many changes in the states, it became clearer and clearer that it was necessary to address specifically the collaboration of university and school on the question of teacher preparation. The fact that eleven of fourteen Mellon projects focused on teacher preparation indicates its importance in the evolving reform movements.

The latest series of nationwide reports focused on undergraduate preparation and criticisms of curriculum questions as to whether curriculum has gone helter-skelter and should return to some stronger, more rigorous, more controlled focus, and whether the faculties were in fact capable of providing the kind of rigor and preparation that was worthy of the award of the baccalaureate degree. Much of the work, and many of the observations of those reports have in turn come back to the issue of remedial work at the postsecondary level, which translates very directly into the issue of whether the preparation at the secondary and elementary level was effective in the first place.

Looking at these reform reports, let us come back to this essential issue of collaboration, not to question who is to blame for whatever deficiencies or shortcomings may exist, but in the spirit of trying to figure out what can be done more effectively at each level. We must carefully join together across the levels in order to proceed more effectively, which in turn will have an impact on the effectiveness of both sets of institutions. You have copies of our overall program. We have presentations on

various perspectives on teacher education: integrating the schools and colleges in teacher education, the demographics of teacher supply and demand, quality control issues, certification requirements, equity, ways of recruitment, teacher performance, and career patterns. We mix these presentations together with direct observations about the Mellon projects, so we can discuss both the theoretical research orientations and the practical orientations. We hope that it is a productive session for all.

It is my privilege now to introduce the first of our presenters, Judith Lanier. She is Professor of Education and Dean of the College of Education at Michigan State University and founding Co-Director of the Institute for Research on Teaching, where she continues as Associate Director concerned with the relationship between research and practice. A former classroom teacher and teacher educator, she serves as First Vice President of the recently formed division, Teaching and Teacher Education, for the American Educational Research Association. Her scholarly activity focuses on the nexus between professional study in the schools of education and professional practice in the elementary and secondary sector. Her chapter in the eighty-second yearbook of the National Society for the Study of Education in 1983, entitled "Tensions in Teaching Teachers: The Skills of Pedagogy," exemplifies this line of inquiry. In addition, she has been chairing the Holmes Group Consortium. Join me in welcoming Judy Lanier.

KEYNOTE ADDRESS

**A LOOK AT THE RESEARCH/DEMOGRAPHICS:
WHAT DO THEY TELL US ABOUT INTEGRATING
STATEWIDE SYSTEMS FOR TEACHER EDUCATION?**

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I have been asked to speak about recent research on teacher education, and to relate my understanding of the field to the potential for integrating statewide systems of education. As we explore the research, I hope you too come to appreciate the complexity and challenging nature of the inquiry in this field. In today's report I will draw from a major review of the literature recently completed for the American Educational Research Association (AERA). The review covered several decades of scholarship on the preparation of teachers in the United States and will be available soon in AERA's *Third Handbook of Research on Teaching*.

If we are to understand the major issues confronting teacher education in the mid-1980s, it is important to begin with the contemporary research in the field. When these new understandings are juxtaposed with pending demographic shifts in our society, we have reason to be concerned about future policy affecting the education of teachers in America. I will comment also on some of the initial recommendations made by the Holmes Group, a consortium of education deans who have critically examined this research and are now engaged in the process of launching a serious reform effort in teacher education. Both the research and the Holmes Group proposals have implications for our mutual interest in better integrated statewide systems for teacher education.

Let me turn our attention now to what the research suggests. Overall, the research literature reveals a pattern of enforced marginality for teacher education—teacher education is not maintained as a legitimate part of higher education nor as a central part of the nation's elementary and secondary schools. Unlike the formal preparation provided most other professionals, the education of teachers lacks the

support required for scholarly respectability at the university and the capacity to improve practice required for credibility in the workplace. This general pattern is borne out when one considers the research on any of the four commonplaces of teacher education: the students, the faculty, the curriculum, and the institutional contexts of teacher education.

Because one of the most serious problems of teacher education rests with the college and university faculty, and not—as one commonly perceives—with the students aspiring to become teachers, I am going to begin with what we know about the teachers of teachers.

Teacher Educators

The research on teaching teachers stands in stark contrast to research on teaching youngsters. When teaching is studied in elementary and secondary schools, teachers are considered too important to overlook. However, researchers typically overlook teachers of teachers in studies of teacher education. Admittedly, it would be difficult for researchers studying teacher education to study their colleagues at the university. But even if it was not a delicate matter, it would be impossible to find the appropriate population for study. The composite of those who teach teachers is loosely defined and constantly changing. But for our purposes today, we must at least conceptually define the population of teacher educators at the university.

Let us assume that teachers of prospective teachers are those persons officially responsible for the design and delivery of the formal instructional program required of those seeking certification for elementary or secondary schoolteaching. Virtually all such programs contain three major components of required academic work: formal course work in general-liberal studies, formal course work in each

student's major and minor fields of study, and formal course work in pedagogical study. While the scope and sequence of these studies vary (depending upon whether the initial preparation occurs in a four- or five-year program), this three-pronged content configuration and general set of training requirements remain similar. The oversight and governance responsibility for teacher education programs is shared broadly across the institution of higher education, emanating from faculty in the various departments that make teaching contributions to these three areas. Thus, almost all university faculty who teach undergraduate students can be considered teachers of teachers—not just those who teach specific education courses.

Nonetheless, few professors outside colleges of education describe themselves as teacher educators, even though that is what they are. In the 1970s, for example, a quarter of all the students at the university were in teacher education, yet you would not find a quarter of the faculty feeling, thinking, or identifying themselves as teacher educators.

Even in colleges of education, one finds many faculty who have little to do with teaching teachers. Many of them teach only students pursuing alternative school-related careers such as administration, counseling, and school psychology. Still others teach only those pursuing non-school, though education-related work in business, industry, government, or higher education. Thus the term "teacher educator" is not synonymous with those appointed to education units; and further, it is not synonymous with professors who teach an occasional course in pedagogy.

Identifying primarily with their discipline, the professors teaching foundations courses to prospective teachers (e.g., the psychology, sociology, history, or philosophy of education) tend to deny their teacher education role and identify those who teach methods courses and supervise practice teaching as the *real* teacher educators. But most professors teaching methods courses would disagree. Identifying with the school subjects of their expertise, they tend to consider themselves science educators or mathematics educators or reading educators, and point to those who coordinate or supervise student teachers as the real teacher educators.

Quite clearly, there is a broad sense among university faculty that there is little or no profit

in the field and the sense of professional identity and commitment is obscure at best. Those whose work is most closely tied to teacher preparation, the supervisors of student teachers, occupy the lowest place in the status hierarchy. The generalization from research is clearly that teacher education is practically everyone's and yet no one's obvious responsibility or priority.

The question then arises, obviously, why has this been the case, and why does it continue? James B. Conant addressed that issue two decades ago in his report, *The Education of American Teachers*. Conant believed that the hostility toward those who taught teachers was rooted in a classic tension between the schools and universities, and that it showed itself in the conflicts between professors of education and those in the arts and sciences. He interpreted the conflict primarily in terms of political power, noting that certification regulations were imposed on the universities and the colleges as a result of pressure from a coalition of state department officials and public school people. He attributed the conflict to the academic faculties' resentment of any and all such external coercion, stating that the academic faculties in turn resented the professors of education, since they were associated with public school and state department officials.

While Conant may have been correct in attributing part of the conflict to issues of coercive certification, even he acknowledged that he had "perhaps stated the issue too simply." More recent research suggests that he likely thought too narrowly about these quarrels in at least two ways. First, the conflicts are not limited to skirmishes between education professors and liberal arts professors—for similar battles go on regularly among the education professors themselves. And second, the fundamental conflicts seem to involve more basic ideological issues grounded in abstract views of social status and the place of teaching in our society.

The disparagement of teacher educators may well be related, albeit indirectly, to the lower socio-economic backgrounds from whence most of them come. Researchers have found that faculty in education have difficulty adjusting to, and accepting, the norms and expectations of academe. Those studying such faculty at the university have found evidence in support of an observed relationship between social class and less scholarly productiv-

ity. The findings suggest that "... where the field of knowledge of the incumbent is one that is largely of application or conative skills, larger numbers of individuals from the lower social classes are to be found than when the field of knowledge is one largely involving the theoretical or cognitive skills."

A disproportionately large number of faculty teaching teachers have come from lower middle-class backgrounds. The evidence suggests that they obtain conformist orientations and utilitarian views of knowledge from their childhood experiences at home, educational opportunities in school, and restrictive conditions of work as teachers (which over 80% of them have done) before coming to higher education. Thus, the teacher educators closest to schools and prospective and practicing teachers often assume professional work assignments and routines that demand minimal intellectual flexibility and breadth and require, instead, conformity and limited analysis.

Some scholars argue that because professors of education are concerned with practice and the clinical aspects of teaching, they are not given serious attention by their university colleagues. But it does not seem to be practice alone that is the culprit; if it were, then other professional educators (e.g., those preparing lawyers, medical doctors, etc.) would share the image of teacher educators, and it is clear that they do not. Harry Broudy suggests that the low level intellectual preferences and mental processing of teacher educators are to blame. He implies that these professors are excessive in their devaluing of abstract thought and decision-making. And he reasons that: "It is only when the practice is highly routinized and demands a very low order of cognitive strain that the academic noses go up. And it is only when the practice seems divorced from a coherent body of theory on which there is considerable guild consensus that the noses stay up."

The historical research supports Broudy's hypothesis and the idea that low status, humble social origins, and low level knowledge and skills are related, and it emphasizes the longevity and tenacity of the problem for teacher education. Paul Mattingly, for example, presents substantial evidence that persons concerned with the education of teachers in this country struggled to uncouple these factors when schools were first created to prepare teacher professionals over 150 years ago. Mattingly's study describes the early struggles of

education faculty in the independent normal schools who sought to construct and maintain academically respected programs of teacher education. He suggests that their battle was a losing one because the attitudes and habits of thought associated with sex and social class had an excessively strong influence.

Mattingly describes how early attempts to have professional schools for teachers reflect specific attitudes of intellectual discipline and self-possession were displaced as women and members of the lower social classes came to compose a majority of the teaching force. Even the most academic normal schools, such as the four-year program at Bridgewater, Massachusetts, became consistently less attractive over the years as young men from the upper social strata gravitated to liberal arts colleges. Left with women who would teach in elementary schools, the two-year normal schools became both the norm and the bottom rung of the academic ladder. Mattingly's research shows that, "as the schools were overtaken by women and by vocational training for specific skills, the curriculum quickly lost its pretense of academic training and gained methods which collegiate minds deemed unprofessionally mechanical."

Arthur Powell's historical research also supports these findings and shows that leading educators in the 1890s sought to change the situation. They believed that the establishment of teacher training opportunities in higher education, and especially in the best universities, "would raise it at once to the ranks of a learned profession, worthy to command the best talents and the loftiest intelligence, and to be entered only, like law or medicine or theology, after the amplest professional training." But those who avoided the normal schools and came to the university to find greater dignity and respect for themselves, for the work of teaching, and for their teacher preparation, were disappointed. Expanding enrollments in the nation's schools prevented the recruitment and selection of the most elite and intellectually able into teaching, and necessitated the continued employment of women and lower-class males.

Education professors in the nation's leading universities recognized that respect would remain elusive for academically talented, upwardly mobile men as long as they continued as members of groups dominated by others of low status; and they sought and found an alter-

native means of resolving the problem of finding "positions of honor, responsibility, and authority in teaching." They changed the priority mission of schools of education from that of improving teacher education to that of preparing an elite minority who would become the managers of the lower-status majority. Women and less-able men, who would necessarily comprise the massive teaching force, could continue to receive a meager and technical preparation; the career educators, with responsibility for management and important decision-making, would receive the more thorough and substantive professional education.

As recently as 1982, the Ford Foundation commissioned Harry Judge, a professor from Oxford University, to study the leading graduate schools of education in the United States. He found, still, that faculty and many of the administrators in those schools could deal with educational policy and research and other higher level fields—but not with the education of teachers. As he indicated, most of the professors in these prestigious graduate schools and colleges of education wanted to avoid the "dirty business" of teacher preparation.

So, as you can see, we have a powerful tradition of avoidance and neglect to overcome if teacher education is to be taken seriously by those in higher education. When it comes to teacher education, the university is not the "unreal" world. Rather, it is clearly a part of "the real world," to the extent that quality schoolteaching is not judged to be a high priority, or thought to be of important social value. It would follow then that if we are to be concerned with teachers, attention must be given to the expectations, goals, and dispositions of those who teach teachers.

The Students of Teaching

Let us turn our attention now to the students of teaching. Press reports, as well as a number of scholarly reports, conclude that the only students entering teacher education are those who can find few other academic opportunities—that teacher candidates are at the bottom of the academic ladder. While it is clear that the academic potential of teacher education students can be improved, many of the devastating descriptions of the student population have been based on hasty or even misleading analyses.

These hasty analyses are only partly the re-

sult of overeagerness in investigative reporting; the poor quality of demographic data makes it difficult to give a balanced appraisal. The statistical reports of the National Education Association and the National Center for Educational Statistics provide descriptive data, as do the synthesizing reports of Feistritzer and the demographic studies of Sweet and Jacobson. But few individual studies make careful comparisons between teaching and other student populations; nevertheless, we can draw a number of the studies together to better understand the situation.

In 1980, even with the shrinkage of teacher education programs, education still accounted for one-eighth of all bachelor's degrees granted, second only to business and management. These large numbers need to be taken into account when assessing the capabilities of prospective teachers.

Consider, for example, reports that the students of teaching do not come from among the best and brightest of the college population. Such reports are misleading because many academically talented students continue to pursue careers in teaching. The median level of academic performance remains admittedly too low, but reasonable and realistic recruitment goals cannot be established until the total available pool is compared with the size of the needed population.

If a small number of new graduates is needed, one can hope to draw most of them from the top of the population. But the number of new teachers needed annually has only dropped below 100,000 once in the past fifteen years. The extent of the difficulty can be observed by looking at the year 1980 alone, when 186,000 of the 930,000 bachelor's degree graduates were in the upper quintile. If the entire talent cohort pursued teacher education, and if even 80% sought jobs, there would still be a shortage of more than 30,000 teachers in light of the estimated demand for 152,000. The U.S. commitment to mass schooling makes the teaching force so large that the U.S. must look to average college students, as well as to the highly talented. It is a myth to think that we can get an extraordinarily large proportion of the best and most talented college graduates to enter teaching—we would simply have to have too many of them.

But we must think further about the students and the competition for outstanding

people to become teachers. Teacher education is the largest single white-collar group in need of regular and continuing education. As Lortie observed, "Teaching is unique. No other occupation can claim a membership of more than 2 million college graduates and tens of thousands with advanced degrees."

If we needed only 200 or 2,000 bright and capable new teachers each year, attracting them from the top would not be difficult. But we don't need 2,000 or even 20,000—we need as many as 200,000 annually. Given the size of this need, we must ask ourselves what percent of the top group should we be able to attract to teaching. The reality of the situation is that we want smart teachers, but we also want smart doctors and lawyers and engineers as well. At present, the mean academic achievement of entering teachers has declined, and an alarmingly large fraction (about 38%) of the graduates in the lowest quintile enter teaching. But those who claim that the "smart go elsewhere" have overstated the problem for more than 10 percent of the graduates from the highest quintile still enter teaching. The major problem seems to be that too many low ability students are entering teacher education and staying for longer periods than the more academically inclined.

The Curriculum for Teachers

The weaknesses of the teacher education curriculum at the university also must be addressed if we are to achieve lasting reform in teaching. Currently, both the preservice and inservice curriculum suffer from major problems; they are lacking in intellectual depth, rigor, and content coherence.

The large numbers of low achieving students contribute to the marginal status of teacher education, in part, because the curriculum and instruction tend to revolve around the intellectual norms that dominate the student population. The intellectual norms are influenced heavily by the lower achieving students who press for quick and concrete solutions, rather than more substantive analysis of theory, cognitive flexibility, and self-selected decision-making in practice. Because a preference for "being told what to do" rather than "figuring it out" is the norm of the majority, teacher educators and scholars are led to believe that this norm is what teacher education

students need. But when that norm prevails over sustained periods of time, the highly motivated and intellectually quick adult learners and teachers may well seek alternative programs of study and alternative careers.

Compounding this situation are piecemeal, poorly assembled programs of study. The fragmentation of teacher education is the result of a curriculum designed not for a career commitment, but for temporary workers. Here the research shows several major influences on the development of teacher education in America. These influences include the following: (1) the rapid expansion of schooling in the late 1800s, with its accompanying high demand for elementary and secondary school personnel; (2) a social response to this demand that accommodated domestic roles for women and upward mobility aspirations of lower-class men; and (3) the institutionalization of schoolteaching as employment appropriate only for temporary, secondary, or part-time workers.

All of our institutions have accommodated to a transient, basically youthful work force in teaching. Brief, technical training for teachers became standardized, because it did not make sense to create an extended, rigorous training program for teachers who would teach for only very short periods of time. One result of this, as I mentioned earlier, was that colleges and universities invested only modestly in teachers, and instead, gave priority preparation to the people who were going to stay in the schools—administrators, counselors and other specialists.

But today the teaching force is far less transient. The upward mobility opportunities for men are not as numerous as they once were and women expect to have jobs. People are staying in teaching, and the fragmented, technical training of the past is no longer appropriate for training prospective teachers who will make a long-term commitment to the profession. Recent research has begun to inform a better curriculum for teachers, but teacher education is only beginning to address the complex curriculum issues that remain. Ample room for improvement continues, particularly as it relates to the codification, preservation, and transmission of the lore of successful practice. These necessary changes will not occur if the communities responsible for teacher education in the United States continue "business as usual."

The Institutional Context of Teacher Education

Teachers are taught to teach in the nation's universities and schools. But these institutions have been derelict in the exercise of their charge to provide quality programs and public assurance of well prepared teachers. The higher education, public school, and professional communities of which teacher education is a part, maintain loose and sometimes antagonistic relationships with one another, generally accepting teacher education as a tolerable second cousin. Although the reasons for these general conditions are not well studied, there is some theory and research to guide us.

University support for teacher education is indicated by the faculty assigned to the program, the financial resources provided, and the care given to overseeing the quality of teacher education. In each case, the available evidence confirms the impression described earlier that teacher education is not a central part of the university. Surveys of teacher education institutions and reviews of formulas used in determining funds for public institutions reveal a consistent pattern of underfunding. In most institutions, the "profits" made in teacher education fund instruction in other departments. One explanation for the lack of university support for teacher education is that teacher education serves as a source of income to universities and a place for accommodating many of their weakest students. Hence, institutions wish to maintain teacher education, but not to change things that would increase its cost or improve the rigor of its programs.

School districts' support for continuing teacher education is also limited. Though the difficulties of the first years of teaching are well documented, few school districts provide organized inservice education programs directed toward novice teachers. In general, inservice programs are programmatically isolated and politically weak. As with the university, little support, either in personnel or support funds, is provided; and close oversight is discouraged by the disjuncture of responsibility from authority.

Perhaps the key finding from recent scholarship in this area is the relationship between the teaching occupation itself and the education of teachers. The research shows that

teacher education is tied to the level of intellectual responsibility given to U.S. public school teachers. Thus, the education and practice of teaching must therefore be improved concomitantly; and the university and the schools must join forces to improve the working conditions of teachers.

As a group, teachers are weary from the excessive demands of the occupation, dulled from their routinized work with children, and frustrated by the lack of opportunity for intellectual, purposeful exchange with adults. In response, a great many of them simply disengage from the business of teaching. Much of their teaching becomes routinized, habitual, and unenthusiastic. As early as 1890, H. M. Willard, a Massachusetts teacher, attributed the difficulty of recruiting the ablest and most ambitious college graduates to teaching—graduates with career options in law, medicine, business, or science—to the current nature of the career itself.

Arthur Powell, one of our nation's leading educational historians, has drawn from Willard's 1890 argument: "In contrast with other professions in which successful individuals occupied 'positions of honor, responsibility, and authority,' teachers lived lives of 'mechanical routine,' and were subjected to a 'machine of supervision, organization, classification, grading, percentages, uniformity, promotions, tests, examinations, and record keeping.' Nowhere in the school culture was there room for 'individuality, ideas, independence, originality, study, investigation.' Working alone and limited to their classrooms and studies, they tended to become recluses rather than '*en rapport* with the live issues of the day.' Confined to the company of the young and powerless, teachers easily became autocratic, opinionated, and dogmatic. Their isolation extended to relationships with other teachers as well. Instead of collegiality and cooperation, Mr. Willard found a 'critical or jealous spirit.' "

The arguments of almost a century ago sound much like those today. The historical research that uncovered this early commentary on teaching suggests that those who think "teaching is not what it used to be" are only partially correct. In many important ways, career teaching is much as it has always been in this country. The historical and sociological literature suggest that teachers have always been rewarded inadequately and have consis-

tently burned out if they tried to stay in the field for many years. Today, the changes seem to be only ones of degree. We hear more today about teacher burn out and inadequate pay simply because we have more people who are staying in teaching than ever before. Prior to recent times in America, there was almost complete turnover of the teacher work force every decade. We likely did not see the burn out because we always had a new group of enthusiastic young recruits thinking that they could win the day. That is no longer true.

The problems that have been discovered about teaching and teacher education will not be corrected readily or rapidly. As the research indicates, these problems have been institutionalized over a period of 150 years. There are, however, a number of steps we can take. The consortium of education deans I mentioned initially is in the process of examining why educational reform efforts have not really reached teacher education, despite regular criticism and pleas for change in the programs decade after decade. The deans have asked the question of whether we could, at this time, go beyond words and bring about meaningful change.

Our answer to that question is yes. The Holmes Group, which has been supported by the U.S. Secretary of Education's Discretionary Fund and the Ford, Carnegie, and Johnson Foundations, has produced several working papers on these issues and has made several recommendations that I will share with you briefly. A full report of their plans will be available in the coming months.

We have said that both the universities and elementary and secondary schools must show their commitment to the nation's teachers by making significantly greater investments in teachers and teaching. This can be done in a variety of subtle, and some not so subtle, ways. The nation can no longer rely heavily on women and minorities with few available career alternatives to enter teaching. The occupation must compete for talent in the open market for the first time in our nation's history.

In order to meet the human resource demands of this large profession and to allow for variations in professional aspiration among candidates, we must differentiate the work of teaching so that varied roles and responsibilities are not only possible, but reflect varied levels of preparation. Teaching must be

restructured so that it can be rewarding for both brief periods and for long-term professional careers.

Scholarships for prospective teachers will be important also. University scholarships are made available for artists and scientists and all kinds of people that society values and needs. The investment in scholarships for student teachers needs to be made by the university, as well as by the states, school districts, and other sources. Since these reforms will be costly, the base of support for them must come from a variety of places and must eventually be built into regular ongoing budgets.

Further, we need celebrations of entering classes; graduations; special awards for special teachers; and the acknowledgment of teaching merit by presidents, provosts, deans, and state school officers. The attention now being given to teaching is the beginning of that investment, and it needs to continue.

We need to create and require a counterpart of the teaching hospital, although not a recreation of the laboratory schools that were formerly on the campus. Exemplary school sites that have differentiated roles for teachers and permit teachers to work as professionals are needed in the real world. We cannot prepare people for teaching as a respectable career unless we have schools where teachers can learn and be encouraged to be continuous learners and intellectual in their role.

No one institution can bring this about. The Holmes Group will recommend, therefore, that universities work with selected school districts in what we have come to call "Professional Development Schools." The idea is not new, although the Holmes Group sees the Professional Development Schools more broadly than usual, in that they would serve as places of professional development for university faculty, school faculty, and aspiring new professional educators.

We also need an interdisciplinary climate and an ethos of inquiry in teacher education. We need to insist that the knowledge base for teachers receives much more serious attention than it has heretofore. We cannot help teaching improve as a profession without a much more sophisticated growth in knowledge about more effective practice; while we have learned much about good teaching in recent decades, much remains to be discovered and codified so that it can be shared with others. We must have colleges and universities that avoid mak-

ing teacher education a pattern of routine, low order learning. We must have institutions of higher education that truly foster learning in the majors and minors as well as in the general-liberal arts; the full curricula must be inquiry- and problem-focused. Teachers who have not experienced such teaching and learning cannot facilitate its development in others.

We need to have the university governance of teacher education operated no differently than other professions on the campus, if we are to have accountability in teacher education. We must fix the responsibility for now it is everywhere and nowhere. If the students who are accepted into and graduated out of teacher education cannot read, write, or teach adequately, someone must be held responsible.

We need continuous, regular studies of the supply and demand of teachers. There should be a national consortium of institutions that generate and share such knowledge, and the National Center for Educational Statistics must come to do better work in this area. At this time, no one knows how many teachers were prepared for teaching in various institutions across the United States. We need to have this information readily accessible.

Perhaps most importantly, we have to insist that faculty who teach teachers are themselves competent and committed teachers. Teaching is not adequately valued at the university, as excessive emphasis is given to research and publication. While the acquisition of new knowledge is clearly important, it must not be acquired at the expense of quality teaching. The quality of the teaching one receives as a prospective teacher matters, and we must insist that if professors are not competent and committed teachers themselves, then they cannot teach teachers. And we should establish a clinical faculty in teacher education as in other professions, so that together, the university-based faculty and school-based faculty can develop and offer a coherent professional program.

We need also to celebrate our teacher-scholars—those elementary and secondary teachers who are especially scholarly, capable, and productive. Perhaps a national board could be created to recognize these outstanding professionals and make them "fellows" of a very special group. Today we cannot say that there is much reward or recognition for being outstanding teachers or teacher-scholars.

We should also consider denying access to teacher education to those students from the lowest quintile of the college student body (as evidenced by a variety of measures). We need examinations based on a newly constructed curriculum for teachers. The universities and the schools need to work together to design such a curriculum. We must be sure that prospective teachers know and understand the subjects they teach. We should not permit anyone who is going to be a career teacher to have anything less than the equivalent of a minor in a subject that he or she will be teaching. All teachers should understand at least one subject in depth, and should therefore complete a good, sound academic major. Elementary teachers must have a much stronger grounding in all subjects or teach fewer of them than they do now. New team arrangements may need to be devised to assure knowledgeable elementary teachers. Undergraduate study in education should be reduced to strengthen the other components in teacher education. A pre-education sequence of pedagogical study should be permitted, but then it should be followed by graduate-professional study in education at the master's level. And no graduate-professional degree in teaching should be awarded without a full year's internship under the close tutelage and supervision of closely screened and highly trained clinical teacher educators. Obviously, the only way we can provide this kind of substantive teacher preparation would be through a lengthened period of training.

The curriculum must be extended, for if we try to squeeze more into the present four-year period, we would have to compromise something essential—either the general-liberal studies, the sound mastery of the subjects to be taught, or the professional studies themselves. If we are going to have a professional, well educated teacher, the fragmented, slipshod curricula must be remodeled, and the full program of training must be elongated. The program must include continuous evaluation and the oversight of professionals, for we cannot tell whether we have an adequate teacher with a test alone. While tests are clearly essential, we need outstanding practitioners to make judgments about the important aspects of teachers' full responsibilities, commitment, and character. This instruction and screening must be done collectively and collaboratively with school and university faculty.

Many of the new standards, such as the Holmes Group is proposing, would require school and university partnerships, for teacher education cannot be improved until the profession of teaching is improved. Our state leadership will need to encourage these partnerships, as well as further research and development efforts to improve the working conditions, professional education, and certification of teachers for this nation's school-children. Your conference here on integrated statewide systems represents a good beginning.

ROBERT BENTON (Superintendent of Public Instruction, Iowa): I am intrigued by your assertion that we are not hiring the best when we might have. Could you comment as to why this is the case? Is administrative training such that we administrators do not know how to pick the good ones?

DR. LANIER: That would be for a variety of reasons, and there is more inquiry going on to try to uncover them. I think one reason clearly is that administrators are not trained to look for the best. As a matter of fact there is a training program that a number of administrators from the Southwest were taking. The program effectively was training administrators to ask questions of candidates. They scored it is as follows: They might ask, "Why would you like to teach, Judy?" If I said, "I would really love to explain the Pythagorean theorem to tenth graders to get them to feel good about it," I would score a minus two. If I said that I just loved kids, I would score a plus three. The training that the administrators received was anti-academic and pro-nurture, which is the model that has been much encouraged in teacher education. So clearly one of the reasons is improper or inadequate training in what to look for.

Another reason is that we simply do not know; we have not really thought much about this field in a deep way. Do we know how people differ, given those factors? I am not arguing that it necessarily matters, on a case by case basis, but it matters on a collective basis. If teachers are going to teach and work with youngsters of all ranges and competencies, from the gifted to the slow, then at the very least, they should be drawn from the upper eighty percent. Whether or not we can enforce that requirement is not clear in view of the

tremendous press to be egalitarian and to let most anyone teach. Selectivity has to be made as much on the commitment, caring, and investment in youngsters as on knowledge of the subject matter.

RUTH RANDALL (Commissioner of Education, Minnesota): Are most teachers trained in the Midwest, and secondly, do we need to concentrate reforms there?

DR. LANIER: Right now effectively three-quarters of the approximately 1,300 four-year colleges in the United States prepare teachers. The number preparing teachers increased during the 1970s. They tend to be located in the Midwest and the Northeast, but that is shifting as higher education in general shifts across the United States.

There have been those reformers who have talked about doing away with X number of schools. We have not taken that tack. Rather, we have laid out a plan for what we think is a new kind of a teacher: a well educated teacher, a professional who can take stands, teach youngsters superbly, construct curriculum, engage in study, talk to the local press about what is needed in the school system, and do a variety of things—a very different intellectual teacher. And then we have tried to map in general terms (you cannot do it specifically; deans cannot decide on curriculum) what we need. What would make sense to the person on the street who has to help us support this. That is how we came upon this concept of at least a minor in these fields. That makes sense; it is not comprehensive, but it is reasonable.

The plan, based on common sense as well as professional sense, provides several ways that one could become the career professional whom we are seeking. Students would no longer major in education as an undergraduate, though in one model they could take some education courses as long as they matriculate as a cohort. Therefore they could go to excellent four-year baccalaureate schools and take a little bit of education or none. They would come for a fifth year of study to a graduate school of education, and then move to their first year or induction year, which is one-half teaching, the other half course work.

Given this requirement of increased standards, many institutions may de-select, because they would have to invest more in this.

They could no longer do it on the cheap, which is what happens now. There would have to be a serious investment in the education of teachers, or it could not continue. I would leave the institution, rather than an external group, to make the judgment. I would set very high standards and very high expectations for what would be offered. I think the graduate schools could do a better job. We would not have second-class faculty teaching teachers—that is, the undergraduate faculty rather than the graduate faculty teaching teachers, which sets up a second-class status for teachers. The standards themselves would drive the market.

The effect would be to reduce the number of institutions over time, which would probably be good, simply because there could be more attention [given to each of them]. We will always need a lot of institutions because teaching is a huge occupation.

JOHN LAWSON (Commissioner of Education, Massachusetts): Would you react to a different type of proposal? You mentioned the market-driven system. What about the free-market system? There are companies in Massachusetts now that have been authorized to grant degrees because they believe they can provide better training than some of the colleges and universities. Is there a possibility we could do a much better job if we took teacher training out of the colleges and into the free market, allowing competition between education and non-education enterprises?

DR. LANIER: That question is one that we can think about in a couple of ways. There is always a possibility that some activity, like postal delivery, could be done better in the private world than the public world. There are costs, there are trade-offs. I am going to talk about those trade-offs. Suppose the leading universities prepare doctors, lawyers, businessmen, and all other kinds of people, but not teachers. Suppose they say, "We prepare architects and dentists. The technicians and draftsmen are in trade schools, the private sector, and junior colleges." That would communicate very clearly the value of knowledge and knowing. First, if we take teaching out of the university and say other places can do it better, we stand to lose a lot of very good students who want to go to the university. Secondly, we will lose the opportunity to increase the knowledge base, because if it is not in a

university, which is the primary place for knowledge to be generated in this field, we won't stand a chance of getting that knowledge base. So, since we want to have well-educated, professional teachers who are respected by society and able to compete intelligently with other bright postsecondary students, it would be unfortunate to take teacher education out of the university. There are trade-offs to it; we can do anything, but [such a move] would overall have deleterious effects.

The Holmes Group has taken the other tack. Rather than remove education from the university, we are trying to get the university to take it seriously, and what the university chooses to take seriously, it can. But society has not taken it seriously. Neither the schools, the school districts, nor the state departments are taking the education of teachers seriously at this point. Business may wish to get into it because it is a large market. We might learn from them as we have in other public-private arrangements. But I would not take teacher education out of the colleges and universities. I think it would be very deleterious.

CALVIN FRAZIER (Commissioner of Education, Colorado): If you really do not define the product you are looking for, what difference does it make if it comes from the public or private sector? And the broader question is, given all the parts that you have talked about, if you keep changing those parts, and nobody ever comes back and says, "The product now is better," or "The product really works," what difference does it make whether you go to a five-year program or condense it to a three-year program, or whatever? Secondly, if somebody challenges you and says, "Teachers are poorer now than they were twenty years ago," how do you speak to the change in quality of the whole product from twenty years ago, and not just describe different components? I feel that we are manipulating the components, but never actually judging whether something has changed for the better.

DR. LANIER: We do need to judge. I think that we need to take the opportunity to address the nature of the product, the professional teacher. That would have been a different speech today. The nature of that product is a professional teacher who has certain kinds of knowledge that many people do not see or think about. For example, because of research

in the last decade, we now know that one of the distinctions of an effective teacher is that when he or she calls on a youngster and the youngster responds in a certain way, the teacher does not think just "right or wrong." Many, many teachers think only in terms of right or wrong, but the more outstanding teachers think, "What are the reasons that this person has come to think this way, and how can I respond in a way that respects that?" Teaching itself is a complicated, intellectual matter that is worthy of a major piece of our time and attention. A teacher is not just someone who can keep school. He or she is someone with a broadly educated, intellectual, and facile mind. It is difficult, but not impossible, to describe it, and it behooves us to try.

Many of the arguments you raised are legitimate. They were raised when we increased teacher education requirements, from an elementary school education to teach primary students, an eighth grade education to teach the first three grades, and so on. I think that in some respects teacher education in the normal schools was stronger than teacher education at the university, because at least it was given serious attention. Colleges and universities should give teacher education the serious attention it deserves. People are staying in the field and we need to make it more professional in nature. While it can be done, it should not

be done piecemeal. That is why I wanted to give it a broad perspective today. We need to tackle many fronts at once. But I'm very optimistic of our ability to respond.

FRANKLIN WALTER (Superintendent of Public Instruction, Ohio): How is the Holmes Group going to be expanded to broaden educational linkages beyond its rather small number of participating institutions?

DR. LANIER: The plan that was supported by Ford, Carnegie, and the Secretary indicated the goal of having at least one graduate research institution in every state giving serious attention to building a knowledge base about teaching and developing a professional curriculum, with at least one institution for every 25,000 teachers. That is the goal. So we distributed a wish list of those institutions that would participate seriously in this endeavor. We would encourage all others who would wish to participate. But we want to have at least one such institution in each state that could be networked for keeping better statistics, demography, attitudes, and a variety of things. We could do it state by state. This, then, is a cooperative notion to build networks between leading state and research universities and other institutions that wish to move in those directions. Thank you very much.

**SOME PRELIMINARY FINDINGS OF THE STUDY:
COLLEGE: A REPORT ON THE
UNDERGRADUATE EXPERIENCE IN AMERICA**

**Ernest L. Boyer
President**

Carnegie Foundation for the Advancement of Teaching

I am delighted to be with you at this Summer Institute. I am doubly pleased to see that the spirit of school/college collaboration that was spawned in conversations with Bill Pierce four years ago lives on and has such vitality through the chief state school officers, who I believe are the most centrally positioned education leaders in the nation. I reached that conviction when I was in Washington, and the conviction has been reinforced with each passing year, most especially during the last three or four, when Washington seems less interested in the vision of helping and assisting the children in the nation.

I am also pleased to be here because it is the Summer Institute. I was introduced to the Summer Institute as an experiment when I went to Washington. I think full credit should go to Ted Bell, who launched this gathering of the chiefs a year or two before my own tenure. I thought it was absolutely right because of a conviction that deepens within me each passing year. That is the belief that many of us, especially those in the public sector, are so preoccupied with the pressures of performance, that the human equation upon which that performance essentially must draw is frequently neglected. I think it is a scandal in the nation, that while the private sector understands the human dimensions of those who do the work, somehow in the public sector the "people side" of our organizations seem diminished. We are not allowed to invest in the individuals to renew them, and to find ways to help them discover their own priorities, which so frequently are distorted.

A Perspective on Our Current Situation

I did not intend to say this, but this morning as I threw open the drapes and looked out upon the exquisite nature that surrounds us, I

could not help but recall an event that happened in Saratoga, New York in 1974. I was trying to manage a rather rambunctious, complicated institution called the State University, with its sixty-four separate campuses and sixty-four independent-thinking presidents. I had learned just before going to Saratoga that our budget for 1974 had been slashed. That was the year we had a budget crisis across the nation, and it hit the state of New York with special force. The governor called to say that our budget request was not going to be treated gently. It was my unhappy task to tell my colleagues from the campuses that their life would be somewhat grimmer than they had hoped.

My wife and I were in our hotel room in Saratoga anticipating the evening meeting, a session devoted to projections for the budget, which is about the least inspired speech one can give, unless the news is good. I was in a state of anxiety, to put it mildly, and I said somewhat under my breath to my wife, "There is nothing good to say." My wife, who has always been able to sort out priorities somewhat better than I, asked me to repeat the statement, and then said, "What do you mean there is nothing good to say? We have our health, food to eat, a place to sleep." I didn't know what any of this had to do with the budget. "More than that," she said, and this really hit me in the groin, "you have a job about which you can worry." The indecency of it all! I was carrying the cares of the world on my shoulder, and she was engaging in trivia such as this.

In any event, I reflected on her statement, and that evening at the dinner, I gave what must be the strangest budget speech ever heard. I entitled it, "Priorities," and I said, "Before I get to the details of this budget, I would like to remind you of a few things. First of all, we have our health, food to eat, and you

guys have a job about which you can worry." I gave no credit to my wife. I say this in seriousness. Take just a moment in reflection before I comment on the theme that I have been assigned. Having returned several months ago from a marvelously rich and yet sobering month-long tenure in India, one comes back wondering why our wants constantly become our needs, and why we are so preoccupied with problems without, occasionally at least, pausing to give thanks for the opportunities we have. I think, in fact, there will be a whirlwind of justice that reaps upon us, if we are not careful in occasionally expressing gratitude for the luxuries of our lives, including the jobs about which we can worry.

During the late 1960s and early 1970s it was my unhappy circumstance to meet fairly regularly with students who were violent and angry and who seemed always to want to shout me down or push me out. I tried to be patient through the experience, because to some extent I shared the anguish that they felt. On the other hand, there were tolerable limits. I remember one occasion when a group of students had me cornered in the student union, shouting obscenities, condemning us for everything from Vietnam to the food in the cafeteria, and doing so, I might add, with their feet draped over overstuffed chairs on wall-to-wall carpets. They all looked well fed to me. Finally, in what I hope my grandfather would understand as righteous indignation, not anger, I said, "You know, I frankly am sick of all this. If I might say so, we are sitting here in the luxuries of this setting, with wall-to-wall carpets, overstuffed chairs, and plenty of food, and you are arguing about whether you will have three salads rather than two. Meanwhile, many people on the planet Earth are wondering if they are going to eat at all. If we don't stop this business of endless self-indulgence and ask occasionally how it is that we are so fortunate, I am afraid that we ourselves will have no future, unless more equity, at least more reverence, respect, and gratitude, are given to the advantages we have."

That may not be relevant to the opening of the chiefs' meeting, but I think there are times when we must pause and gain distance on the pressures that we have, and, at least occasionally, give thanks and put our own advantages in perspective.

Overview of Carnegie Foundation Report on College

I have been asked to comment on an upcoming report that is scheduled for 1986. It is a sequel to our report *High School*. In a burst of imagination we called it *College*. But it does have a subtitle. It is called *The Undergraduate Experience in America*. In this report we intend to look at the baccalaureate degree. We are eliminating the two-year colleges from our study because that is a story all its own. It is not that these colleges are unimportant; they are just too important to be subsumed under the baccalaureate experience. We don't intend to look at all of higher education; that is overwhelming, in my view. Even looking at the baccalaureate experience is an awesomely audacious task, but there we are.

I pursued this assignment because, as you have heard many times before, I believe education is a seamless web. I am absolutely convinced that we have fragmented ourselves and in the process done a disservice to the students, and if education is ever going to be improved, we are going to have to find ways to get our act together and start speaking and listening to each other. That is the beauty and excitement of this conference. The point of college is very simple. It begins in high school. And we are going to begin our report in high school, too.

First a word about the procedures we have followed. We have 5,000 faculty and students in all kinds of colleges divided into what we call the Carnegie classifications. We have responses from these faculty and students on a whole range of issues, including their personal hopes and aspirations, as well as their views of education in the United States today. Because college begins in high school, we have also surveyed a thousand high school students and their parents to find out what their hopes are and how they will choose a college. We have surveyed over 1,000 academic deans in the United States to ask them about the status of general education. Then, consistent with the process that we use in *High School*, we went to thirty different campuses, and our site visitors spent from two to three weeks on each one, living in the dormitories, eating the food. Most of them survived, recording what they saw and

heard, attending classes, and interviewing students, faculty, and presidents.

I will not pretend that I now have the full interpretation of these data. I must say that we are almost overwhelmed. I tentatively concluded, however, that there are five major themes that we will discuss. First, and perhaps surprising, we will discuss at some length the theme that I call transition—the connection between high school and college. What is the process by which students make this selection, and how can it in fact be improved? Some may be startled that we will spend perhaps one-fifth of this book on college by looking at high school students and their parents and the process by which they are recruited. But to me, that is the central conviction that must be reinforced.

Second, we will look at the academic program. We will examine the status of general education, and also the shift in the majors toward the dramatic revolution called careerism in higher education today. I should say parenthetically that we will probably argue that it is absolutely false to condemn the students' interest in careers, since all of education is to be useful. We are making a great mistake to draw a line between the liberal arts and the useful arts, since, in fact, education is to prepare our students to be productive. And the debate has been drawn in false and strange ways. Rather, we will argue in this report that the goal of careerism is to help the students gain larger perspectives and bring values to their work, not to demean the work, but to enrich it and enhance it. If that can be the perspective in higher education, then I believe we will eliminate a lot of anxiety prevalent today.

Third, we will look at teaching and learning, and most especially, the condition of the faculty.

Fourth, we intend to look at life outside the classroom. I will add, since I did not intend to pursue this issue further here this morning, that I am deeply troubled—having read all the data, having heard our campus site visitors report back to us in debriefing sessions—about the general climate outside the classroom in higher education. To me, there has been an abrogation of responsibility by and large. We have gone from *in loco parentis* to clinical services, and there has been no constructive intervention in between. We have

gone from parent to clinician, and we do not know, in my judgment, how to organize what I can call a community of learning. In the classroom, in my view, there is too much rigidity. In the school outside, there is too much openness, bordering on what might be called low-grade decadence in many institutions. I think higher education has a serious problem, which must be carefully examined. No one would argue that we should go back to intense supervision, but can anyone be comfortable with conditions in which no one essentially is in charge and no responsibility is being exercised in life beyond the classroom?

Finally, we will look at what I call the impact of college. That is, how can the results be measured, or should they? How does the college education relate to the world our students will inherit? In regard to the last point, I predict that we are going to continue to see at state levels an interest in assessing the outcome of college. Already several states, led by governors or legislatures, are asking the question, "How do we know that our investment is paying off?" I think colleges and universities run the risk of seeing outside measures introduced in order to establish some criteria by which public investment in higher education can be carried on. So I think the last issue is very consequential. That is, what is the impact of college and can it, in fact, be measured?

So much for overview. Let me now back up and talk about some issues that I think are particularly of interest to colleges and schools together, some convictions that I have, tentative to be sure, about the work that we have done thus far. The first concerns the need to smooth the transition from school to higher education for many of our students. I did not enter this study with the belief that we had a problem here, but I leave it believing it is one of our most serious issues.

The Recruitment Race

First, there is the ethics of recruiting. As you know, between 1979 and 1995, there will be a decline of a million eighteen-year olds. To put it bluntly, the recruitment race is on. There is an almost humorous list of enticements that colleges now present prospective students. One college gives a money-back guarantee to students if they do not get jobs within twelve

months. Another college guarantees a free semester if its students fail to get jobs. Another campus we visited offers free ski-lift tickets to families who will visit the campus in the fall. Another college offers \$100 to their current students if they will recruit a student and bring him or her with them in the fall. Many of the faculty are deeply involved in recruiting. In a draft chapter in my report, I quote a faculty member who said, "I have had a good recruiting year. I have already gotten my quota of nineteen students." Seventy-five percent of the colleges use direct mailings; seventy percent use participation in college nights. These are not illegitimate; I am just saying there is an enormously intense effort to market the colleges in America today. Fifty percent use telephone calls, and about one-fourth have expense-paid visits to colleges by students and their parents. The list goes on and on.

The efforts to attract students are intense. Most are honorable. If I were running a college, I would be concerned about students. I would want my story known, and I would probably be putting pressure on the recruiting offices to tell the story. That is not what worries me. The issue that worries me is one of candor, honesty, and openness, and whether the high school student is being well served. That is the issue at stake.

I was startled to find in our survey of a thousand high school students that, even with all of the recruiting, students still feel that they are not well informed, and many are also skeptical of the process. Let me give you some of the data we found: ninety-five percent of the high school students we surveyed (a population of high school seniors who said they were going on to college) said they had, in fact, read college brochures, and yet only thirty-two percent of them said that the brochures were relevant to their needs. Fifty-nine percent said they were accurate; that is, they felt they could be trusted. Seventy-three percent said they had talked to a counselor and yet only fifty-seven percent said the information they received from high school counselors was relevant, and seventy percent said it was accurate. Fifty percent said they had attended a college night where promoters presented the case for a college. At the same time only sixty-two percent said the information they got from college recruiters on a college night was relevant. Sixty-five percent said it was accurate.

Now I am not suggesting that the information students receive is inaccurate. I am only saying that students (at least from one-half to two-thirds, depending on the category) *thought* it was inaccurate. We also asked the students (the survey was made in December 1984) if they felt they had sufficient information to make a decision about going on to college. Fifty percent said they did not have enough information to make an informed decision. Then we asked them what kind of information they most wanted. Overwhelmingly (this may not surprise you) the students said the costs and financial aid issues were those in which they felt least well informed. We also surveyed the parents of these students, and about three-fourths of the parents said they felt they needed to know a lot more about the competence of the faculty.

What I am suggesting is that something is not working very well. On the one hand, we have colleges that, except for the most prestigious, are urgently marketing and recruiting. On the other hand, fifty percent of the students say they do not have adequate information and are really quite critical of the information they receive. Now enters the villain from offstage. I am most troubled by what I would call the new recruitment industry that is emerging. Since we have skepticism among students about what they are hearing, entrepreneurs are going to move in and fill the gap. I predict that perhaps one of the fastest growing industries in the next five to ten years will be the college marketing industry.

When I was in Japan two years ago, I visited this enormous tower called the Recruit Center. This is a commercial institution that provides transition from high school to college and from college to work for the students in the nation. This industry has centers in all major urban areas across the country. The young man who started it is, I understand, enormously successful, precisely because he saw a need and is filling it by serving students. Colleges and technical schools pay to be advertised as part of the Recruit Center process. A phenomenon similar to this, probably not as well organized, but certainly more widespread, is emerging here at home.

I could begin with the college guides. I don't know if you have kept track of what is going on in the college-guide industry today. It used to be a few college handbooks, *Barron's*, and so

forth. But we went to the *Publishers Index*, counted fifty college guides, and I am sure we did not get them all. They range all the way from guides for women in the South who want to go North, to guides for the people who want to go to colleges with gourmet food, and it goes on and on. Walk into the Harvard Coop and look for college guides, you will find two and one-half shelves. Now the bewildering explosion of these guides, it seems to me, only adds to the confusion, but people are making money in the process. Some guides are excellent, but others are not benefitting students.

Why is the this transition industry emerging? Frankly, because students and their parents feel they do not know enough, and they are trying to figure out what college is all about. I chatted about this with a gifted woman who holds a doctoral degree. She said, "Last spring, when my daughter was going to college, I was confused. Finally, in desperation I went out and bought Lisa Birnbach's book on college, because she really told the true story." Now if you have read Lisa Birnbach, you know she does give the "inside" story. The question is is it the right one? Without being judgmental, I think we run the risk of having gossipy anecdotes determine college selection and only add to the confusion. I am talking about serving students and their parents who are trying to make one of the most important and costly investments in their lives. Isn't there a way for us to be more honest, open, and responsible?

Let me tell you this story. We took six college guides, to check the enrollment figures each gives for randomly selected colleges. We chose Fisk and Tufts. Not one of the six guides had the same enrollment. They were all different, sometimes varying by several hundred. Then we went to the National Center for Education Statistics (NCES), to get a benchmark. Not one of the college guides came close to the figures that NCES said the colleges had reported as their enrollments. One wonders whence these figures come. It may not make much difference if one chooses a college whose enrollment figures are incorrectly listed in a college guide, but it does raise a question: is there anything else that is right in this book?

In addition to college guides, there are paid recruiters. In the thirty colleges we studied in depth, ten percent (now that is not large, but it has grown from about two percent in five

years) hire paid recruiters. One does not get the feeling there are many questions asked, as long as the body is warm and the pulse is felt. More than that, there is a video disc industry that is now exploding. Colleges can pay three to five thousand dollars and get three minutes on a video disc. These are then in the counselor's offices where they can be viewed. I did this one day for two hours. It is like round-the-clock commercials. After fifteen minutes, I did not know one college from the other. The messages all become homogenized. Incidentally, in recruiting, water is very big for some reason. If you are within fifty miles of a lake, somehow it is in the message. Water and skiing are very big this year.

The problem with the video disc, again, is that it is just like a commercial. It tells you everything that is right, nothing that is wrong. It does not deal with nuances; it is hard, hard sell. Further, in the process, minority students are once again disadvantaged. These video disc companies will send their viewers free to the top high schools where they know the "yield" is greatest. In other words, the whole recruitment process is increasingly building around those institutions that appear to be the best market. By this process we are not only failing to inform students effectively, but also we are once again going to see more advantaged students served by a commercial firm.

There is also the myth that colleges perpetuate about selectivity. The truth is that only about fifty colleges in the country are highly selective. The thirty colleges we studied in detail (and these were random samples across the categories) accepted seventy-five percent of all the students who applied last year. Then we asked them if they had a Scholastic Aptitude Test (SAT) cut-off point. The average for those thirty colleges was a combined score of 770. Below that they would think the student unacceptable for consideration. Then we asked students, "How in the end do you decide where to go to college? How do you choose?" Two things influenced them the most. Contrary to the myths abounding, parents were the most influential.

Ranking high also were campus visits. If you can get a student to a campus, and the parents like it, you have got the student. We said to the students, "What about the campus visits influenced you the most?" Two-thirds of them said the buildings and grounds. They liked the

look of the place. Forty-nine percent said the friendly students. One gets the feeling, in terms of recruitment, the maintenance department is more important than the academic program.

Let me make this clear. I do not believe there are any villains here. I am convinced that with a few exceptions, colleges are doing a decent, honorable job. They are trying to let their programs be known, and the more information they can present, the better it is. I am less gentle with the industry that is emerging, the entrepreneurs who are out to make a buck. I think some of them can be of help, and most of the college guides are helpful. I am not quarreling about that. I am deeply troubled, however, that coming in from left field are the people who are going to take advantage of this. What troubles me most is that in the process, the students are not going to be well served.

I present this because it is a school/college problem. I do not have an answer at the moment; I do not know now what we will recommend in the book. I present it more as an issue, because we are talking about young people and their parents who are making a decision, and somehow we have not found a way to serve them adequately. I remind you parenthetically that fifty percent of the students do not go on to college. Who is helping them? Who is trying to inform them about their options? Virtually no one is. I remind you also that fifty percent of the students who do go on to college drop out before they graduate. That cannot be a very happy record. Now it is true some of them do come back later on, but I am deeply troubled about that mismatch between the students and the college.

Decline of Minority Student Enrollment

I am also troubled that the minority student enrollment is declining. That decline means that somehow these students are not being well advised, and that recruitment is not focusing on the disadvantaged schools. I feel that those of us who care about education, who care about students as they make the transition, have to look carefully at the ways schools and colleges can better serve students as they move from school to higher education.

Strengthening the Teaching Profession

I will now look at ways to strengthen the profession of teaching in the nation. That is why you are here this week. As you know, in our report on high school, the question of the quality of teachers received considerable attention. It is my view that we cannot have excellence in education unless we find a way to give more status to the teacher. We are going to release in late August (and I will send you all a copy) an update on a book we released in 1983 called *The Condition of Teaching*. We will list what changes have occurred during the last two years in each state in terms of average teacher salaries, expenditure per pupil, and other comparisons. So we will be able to have a state-by-state and nationwide comparison that will cover the period since *A Nation at Risk* was released.

During the past two years, we have had an average salary increase of seven percent each year across the nation. In effect, since 1983, when the National Commission report was released, we have had a fourteen percent salary increase for teachers, and some states have moved ahead much faster. Incidentally, that fourteen percent increase is about double the rate of inflation, so we are making a little progress on the issue of teacher salary, but, of course, it is not in any way competitive with other professions.

I am suggesting that the condition of teaching is the centerpiece that needs to concern both schools and colleges. While we focus on teachers in the schools, I am prepared to say that we have a serious, if not comparable crisis in the faculty at colleges as well. A few responses from faculty illustrate the point. Forty percent of the faculty disagreed with the statement, "I am more enthusiastic about my work now than when I entered my career." Thirty percent said, "I feel trapped in this profession." Perhaps more revealing, sixty-four percent said, "I have found or would seriously consider another academic job than the one I have now." Over fifty percent said, "I have found or would seriously consider a non-academic job if it came along." To put it simply, one-half to two-thirds of the faculty say that they would change jobs, and even leave the profession. Then we asked faculty about the morale in their department. Twenty-three per-

cent said the morale was better than it was five years ago; forty percent said it was worse.

I was intrigued sufficiently by these examples of disaffection to dig deeper. I am not sure I have highlighted the reason for the frustration, but let me give you a hint or two. First of all, there is a dramatic growth in part-time faculty. Sixty-five percent of the faculty we surveyed said there were more part-time faculty than there were five years ago. More than that, over fifty percent said that these part-time faculty are taking positions from the full-time teachers. Let me say that I think there is a place for part-time faculty. I will go one step further. I think there is a place for part-time teachers in the schools. We need to find ways to bring in people who can teach for short terms or in particular fields. I am not condemning; I am only suggesting that this is one source of the malaise. Full-time faculty feel threatened by this inclination towards part-timers who move in and out.

As to tenure, sixty-seven percent of the faculty said tenure is more difficult to get today than it was five years ago. Now that has to be a problem. At the same time, about thirty-five percent said they thought the profession would be better if tenure were abolished. Among women this figure was higher—forty-four percent said that the profession would be improved if tenure were abolished. Further, seventy-six percent of the faculty said that salaries have not kept pace with inflation. Sixty-eight percent said that research support is much harder to get than it was five years ago. I am suggesting that there is in higher education an inclination toward depression among the faculty, a lack of zest and vitality that I believe has somber implications for students and for schools as well.

Let me give three bits of data that will provide the springboard for my final conviction. The faculty expressed an even more intense frustration about academic preparation of the students. The question was asked, "Do the students today seem more interested in learning than they did five years ago?" Now maybe these were the mumblings of aging academics, but seventy-five percent said that students were not as interested in learning as they were five years ago. Eighty-five percent said that students were less well prepared than they had been, and seventy percent said colleges spend too much time teaching students what they

should have learned in high school. These are college faculty, suggesting that they are doing what they think high schools should be doing.

Those observations give me the occasion to make a comment or two about the central questions of this conference: better teachers and the roles of colleges and schools. I happen to believe that if we are going to improve teacher preparation and the quality of teaching in the schools, colleges and universities have an enormous obligation to fulfill.

But I have to begin with what I think is the central problem. The simple truth is that colleges and universities are the problem, not the answer. Time and time again, when we visited college campuses, we found students who said that one way or another they would like to be teachers, but they could not tell their advisor or their fellow students, because they would be critically condemned. How can colleges and universities be condescendingly critical of schools, when they create a climate in which they say to students every day, "This is not a profession to be honored." On almost every campus that I have seen, with some remarkable exceptions (some are represented in the room today), elementary and secondary teaching is the least prized, the least honored, and the least encouraged profession to be pursued.

In my judgment, no one in higher education should condemn the schools until he or she is sure that on the campus there is a friendly and supportive climate, one in which students are told that being a teacher is important and should be honored, and one where an aggressive recruitment program is being carried out. So good schools and good teaching begin right on the campuses.

What Makes a Good Teacher?

One further point: in addition to the climate, the higher education community also has an obligation to think carefully about teacher standards. In that regard, we are constantly engaged in rearranging the procedures of teacher education, yet to my knowledge there is no common agreement as to the criteria for good teaching, nor do we have measures by which the performance can be carefully assessed. I would like to see a lot of the

energy we now put into procedures focus increasingly on the simple and yet fundamental question (it may be unanswerable, but it should be pursued), "What is a good teacher, and how can we assess the teacher?"

An anecdote may be instructive. About a year ago, I could not sleep. Instead of counting sheep, I counted all the teachers I had. I remember about eighteen or twenty. There were a few nightmares in the bunch, but I happened on to three or four who I thought were excellent. All of them changed my life. What did they have in common? What made ordinary teachers truly great? Were there any themes I could identify in these people? I recognized just three. First, these great teachers were knowledgeable and well informed. They had something to convey. They brought something to the student the student did not have. That is knowledge. As I recall, they were able to bring facts and ideas out without having to look them up in the encyclopedia. They knew some things, and they were ready to transmit them. That was number one.

But that did not make them great teachers. I have videocassettes that can do that. I have had humdrum teachers who seemed to be knowledgeable, but they did not change my life. So what was number two? Well, I remember all of them had the power to communicate at a level that I understood. Sure they had the knowledge, but they also knew the capacity and receptiveness of students. Now that is a remarkable skill. I have had teachers who were informed, but could not communicate at a level that I understood. But these great people somehow knew precisely how to make connections between the sender and the receivers, who varied from grade one to the graduate seminar, and they knew approximately where everyone was. But then I had to say no; I have had teachers who were knowledgeable and communicative, but they did not change my life. They taught me some things, but did not convert me.

The third ingredient sounds a bit mystical. The only way I can describe it is that all three of these people were authentic human beings. I found them believable, trustworthy, and open as individuals. They were not only two dimensional with their knowledge, they were three dimensional with their person. They were able to laugh and cry; they had emotions; they occasionally said, "I don't know." They

were trustworthy and became not just teachers, but, perhaps in a larger sense, friends. These were the truly great ones—great because I could identify not only with their knowledge but with their person. It was the integrity, the openness that somehow caught me. It became not just a matter of knowledge, but of believing, too.

I have reflected on that in relation to the current debates about teacher testing and teacher training. There is an inverse relationship between the hierarchy of the steps that I have described. That is, in schools we can pass on information to future teachers, and we can also test it. Working with mentors in classrooms, we can help them develop sophistication in communicating. As to the third item—I have to admit openly that I don't know how to teach it, and to be honest, I don't know how to test for it. To be blunt, developing teacher training and tests may relate to the least consequential components of the process. That does not mean we do not work at teacher preparation or develop tests. I only throw in a caution; unless we decide what we mean by the great teacher, I am afraid we are going to end up with instruments that keep us within the thick of things; we will develop and strengthen the processes that perhaps are least consequential. In any event, I leave that with you as a dilemma, but also as a challenge.

This leads to my final point. Our nation has not yet faced up to recruitment, a most essential problem. If I read the tea leaves correctly, in the next ten to fifteen years we are going to have a teacher shortage, and all of this testing will be silly if we do not have students adequately available to test. It has been estimated that there will be a shortfall of about a million teachers within the next ten years. Yet only about four to five percent of last year's entering college freshman said that they plan to become teachers. More than that, you have heard endlessly that based upon some objective criteria, these are the least able students who come to college today.

Isn't it ironic that we are talking about testing teachers, when in fact we may end up with an inadequate pool from which to test? In my view, the number one priority of this nation is to launch a concerted campaign to attract our best and brightest young people into the profession. If we do not face that issue as number one, all of the other procedures about

straightening out the process and introducing more examinations will be hollow and to no avail.

Where to begin? Our report *High School* suggests that we could begin in Washington, D.C. I think the President and his colleagues should identify the centrality of teaching and create some incentives and rewards as a symbol of its importance for the future. We have just announced that we are going to send a teacher into space. I think that is fine. Ten thousand teachers applied. There is something of value in that symbol.

But I do wonder if we cannot pay some attention to the problem here on earth. In my view, if the day the teacher goes into orbit, the President would also announce a federal scholarship program to attract the best and brightest from our high schools to go into teaching, that would do more for the profession than having a teacher spin around the earth. I would like to see a federal scholarship program that would symbolize to the nation that we care enough about teachers to invest in young people who agree to work in the nation's public schools.

There is an act approved by Congress called the Talented Teacher Act. I wish all the Chiefs would get behind it. It is an attempt to do precisely what I have just suggested—to give scholarships to up to ten percent of the nation's high school students, who would then agree to teach for several years. That is the minimum we should do. And incidentally I think every state should have a Talented Teacher Act, as well.

I go one step further, I believe that every college should have a scholarship fund for future teachers. Frankly, I would settle for five percent of the scholarship funds we give for football players. Is it more important to have someone playing in the Rose Bowl than it is to have someone teaching in the public schools? The priorities we send to students are outstandingly instructive.

Almost a year ago, at Trinity University in Texas, I was at the President's home for a reception and was introduced to twenty high school students from the San Antonio public schools. They were called Breckinridge Scholars. I asked what that meant. It so happens that Trinity has a grant to give four-year, full-tuition scholarships to up to twenty high school students in San Antonio, with the un-

derstanding they would teach for several years in the city's public schools. When the university announced that, it was flooded with applications. The twenty selected were in the top three percent of the graduating class in the San Antonio public schools, and they were as enthusiastic as could be. The President was already inviting them to the campus for receptions before they had finished their high school year. They were given attention, honor on the campus. The entire message was "These people are good enough to be teachers in the public schools."

To sit around and lament the fact that we do not have good teachers is scandalous if we are not also aggressively thinking of ways to make the profession attractive and enticing to those who are making decisions about their future. I can only tell you from personal experience that when somebody tells a student, "You are good enough to be a teacher," and starts to recruit in the high schools, then we are starting to plant the seeds for an aggressive teacher training program in the future. I would like to see every high school teacher re-introduce the idea of teacher aides, and have our best and the brightest in the last year or two of high school working with other students. My point is that the recruitment of good teachers is the nation's most serious crisis, yet I see the least attention being paid to it.

I acknowledge we cannot do this with mirrors. If the salary is not adequate, if the teachers feel frustrated by the conditions of work that they encounter, we are not going to recruit good teachers. Surely, we have to make it appealing on a day-to-day basis, but we also have to give signals to the nation at the highest levels.

In conclusion, we are in the process of doing a report on college, but colleges and schools are all mixed up together. Our report is going to start in high school and discover how these students are trying to make their way through a system that does not serve them very well. I wish that educators would think more carefully about how to serve the students while students make their college choice.

We are going to look at the academic program and talk about how the curriculum connections relate to school and college, and what it means to be an educated person. Above all we are concerned about the quality of teaching and whether schools and colleges can create a

climate that will help our students understand the importance of serving the coming generation.

RICHARD A. BOYD (Superintendent of Education, Mississippi): I was taken by your comment that the morale of faculty is bad because students do not seem to have as much love of learning as they once had. John Goodlad found the same thing when he did the study of elementary and secondary schools. His point was that young people, by and large, go into teaching because they have a love of helping and they have some knowledge that they want to impart to eager young minds. The first splash of cold water they receive when they get into the schools is that there are not many eager young minds. That is disillusioning. Now we have the same students going into college, which is creating a morale problem. How do we deal with that?

DR. BOYER: That is a tough one. I think that John and I read the data similarly. He describes it so eloquently. It is interesting that the problem shows up at the college level, where faculty feel disillusioned and disaffected. While they are drawn into teaching for whatever reason, whether it is ego or desire to serve, they want people to respond to them. Not getting a response is like being stared at like Brontosaurus warmed over.

How should we deal with it? It is not encouraging, but I think we are dealing with a social-contextual problem as much as a school problem. All of you who have heard me in the last year or so know that I am much more sympathetic to schools than I was before I did our study, because I do see the school very much caught in the social vortex of shifting conditions. Other circumstances in the environment have caused students to feel far more skeptical of the formal learning structures that we have created. These influences include television and independent study, which create the feeling among students that they can learn quickly and easily without the processes being imposed upon them. Now some of those processes may be ritualistic and outdated. I do not want to let the schools and colleges completely off the hook.

There is a mismatch between student values and feelings about how one learns and the procedures that we call school and college.

The interest and connections are not being made. According to our survey, students overwhelmingly are willing to go through the hoops to get a job, but not because they see education as inherently valuable in their lives. Now that to me is the number one institutional-connection problem we have, how to cause students to feel that this is not only good as a ritual in the culture, but also as a personal experience that absolutely can be authentic to them as human beings. That failure can cause them to be lethargic, willing to play the game, but not committed or connected.

On the other hand, to be optimistic, every school we attended in our high school study and every college we visited in our college study had settings in which there existed those brilliant connections. We found teachers who made the connection, so we have to believe it can be done. This was not only in courses that seemed to have some career value, but also in exotic courses like ancient Chinese art, for example, or the study of some very exotic theory. One did find those moments when the teacher knew how to make this believable and compelling to students. So I do not think all is lost, but I do think that teachers today are working against an attitude that is much more skeptical, much less trusting, of the process.

I use personal example perhaps too much. When I grew up in Ohio a hundred years ago, we did not have any television; we had a radio when I was twelve years old. Literally, when I went to school, my teacher was my window to the world. It was a whole new experience to discover relationships and ideas I was not getting in my home. We only had one magazine in our house, *National Geographic*. It came every month. I learned geography and anatomy. That was it, and not in that order.

I think children go to school today in some ways having become much more confident of who they are and much more skeptical of "the authority." That carries right through, so the teacher does not bring to the relationship this sense of authority and so-called authenticity that might have been true in an earlier day when children were not so stimulated by options. So I cannot be optimistic about that. On the other hand, when we see people who are able still to capture students, whether it is first grade or graduate school, we say, "Hey, it's still do-able. It takes more work, but I don't think we can give up."

BILL HONIG (Superintendent of Public Instruction, California): I would like you to comment again briefly about the one topic you mentioned this afternoon. How do we make learning come alive in college classrooms in terms of what the world is all about? How do we guarantee stimulation and the cultural connection?

DR. BOYER: The central questions that seem to elude us endlessly are "What is it we are trying to teach? What do we mean by an educated person? What are the general knowledges and skills that are appropriate in our culture?" These are most essential questions for anyone engaged in pedagogy, the ones we seem least comfortable with and most interested in dismissing. There are no more central questions for college and school educators than these. When faculty say students are not well prepared, the question arises, "What do you mean by well prepared?"

I was at a faculty seminar at one of the most prestigious New England colleges about six months ago, and we got into the issue of core learning for the college. That is, we were working in general education. I said, "Is there anything that you consider appropriate for all students as part of your core curriculum here?" It took about an hour before they concluded that they could not agree that there was. I said, "OK, let's agree that the graduates of this college do not need any common knowledge based on your curriculum. Further, is there anything that you could tell me that would show what students coming to this college might know or understand?" That sobered them a little. They were absolutely willing to dismiss the whole notion of common knowledge when it came to their own general curriculum, but when we asked, "Does it matter that they come to you informed at all," they became sober. And after about fifteen minutes, there was common agreement that some knowledge about U.S. history would be useful. This is a true event, and the discussion was serious.

If I thought that were the case at only one college, I would not present it. It represents to me the confusion about what it means to be an educated person in our culture. I do not agree with everything Bill Bennett [Secretary of Education] has said, but what he has done in trying to stir a debate about education has been a contribution. I admire his asking good

questions, just as I admire very much what Mortimer Adler tried to do for the same reasons. What I am saying is that we should think carefully about what we believe education should accomplish.

I have one or two suggestions. Education, I believe, has at least two objectives. First, education attempts to develop the individual interests and aptitudes of each person. That is, diversity and individualism are central in our society. But education should also introduce all students to a common culture, to the capacity to see connections and to communicate with each other, and to the reality of two circumstances: that we are all alone and we are all together. We live in isolation and we are interdependent. Now education should help me develop my independence and understand my interdependence. When we define interdependence, we ask, "What are the elements that cause my interdependence, that make it possible for me to speak and listen to other people, to have some memory of the past, to be able to talk intelligently about the future, to know how the institutions we have created work?" Frankly, it is as wrong to say that all students are individuals with nothing in common, as we are inclined to do today, as it is to say that all students are all alike and have no individualism, as the curriculum did 200 years ago. The issue is simply that life is a blend of both. And those who want to educate children for the future should think of both those realities.

This issue will not die. In our survey, we asked college deans to tell us whether their general education curriculum had changed in the last fifteen years, and, if so, how? Overall, the colleges in America are adding more to something called general education. The greatest increase has come in adding computer literacy. Twenty percent of the colleges say that they have added that. International education has increased by eleven percent, and, interestingly enough, the arts have increased by twenty-seven percent. The only two areas of general education that have gone down in the last fifteen years are foreign languages, which declined by twenty-one percent, and physical education, which declined by twenty-five percent. So we are both more provincial and more sedentary. My own point, then, is that the general education issue—what schools should be teaching, and how col-

leges should build on this—is an important problem that has not been pursued very much.

JOHN SLAUGHTER (Chancellor, University of Maryland): One of the things we all seem to be pushing for in the country now is excellence. Just as the title "Your Excellency" sounds undemocratic, many people tend to believe that excellence and equity have become mutually exclusive. I know you do not accept that. Could you please comment?

DR. BOYER: I think it is a false dichotomy. How could we say that we want excellence, but that there are only some of us who are able to achieve it? This formulation I think shows built-in attitudes of discrimination and elitism. I would say it is important that we work for a core curriculum or an excellent program that would allow all students to feel that they could participate. If we do not, we are saying, some are going to be informed; some are going to be excellent. For the others, they are going to mark time, but they are not going to be prepared to participate in life.

Let me end with this example to make my point. During our high school study I went into a sixth-grade class in an inner-city classroom in New Haven, Connecticut. There were thirty children around the teacher's desk.

They were around the desk, not just sitting in their chairs. I walked in and observed, thinking at first they were attacking the teacher. But no, they were reading *Oliver Twist*. For thirty minutes I stood there. They would read some, then they would discuss, then read some more. All the children were joining in.

The more I observed, the more impressed and inspired I was that that teacher had clearly brought 19th-century London to New Haven. All the children knew the good guys and the bad guys, and they were all pulling for little Oliver, who was fighting to survive in an urban jungle. The teacher had so vividly made the children see that that very strangely worded 19th-century story was really being lived out in their city every day. They were pulling for Oliver because the teacher had successfully caused them to understand the universal theme of that literature.

Well, that is only one little illustration, but when you talk about excellence for all, I think it is possible (I have to believe this, or else I would get into another business) to have expectations for all children. I will never accept the notion that when I talk about improving schools, I suggest progress only for the privileged. It is going to take more money; it is going to take great teaching. But I do worry that we are going to tighten Carnegie units, without improving teaching, and in the process, see more children fail. That will be the ultimate tragedy, if in this push for excellence, we end up with more failure.

THE RESPONSIBILITY OF THE UNIVERSITY IN BUILDING COLLABORATIVE AND INTEGRATIVE SYSTEMS FOR TEACHER EDUCATION

C. Peter Magrath
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I want to thank the Council of Chief State School Officers for inviting me to this institute because I think the agenda items that you have laid before us are absolutely critical. They have to do with how we collaborate among ourselves and how we try to develop better systems of integrating our teacher education programs. I wish I could spend a couple of days with all of you listening to the other presenters and speakers in your own discussions. These are topics that interest me as a citizen. They interest me intellectually. They are part of our professional obligation as persons in leadership positions in American education. It is also my conviction that not just Big "E" education in our nation's schools is a critical issue—it has been for a long time and will continue to be so—but the issue of teacher education, and how we approach it, is front and center for our society and, specifically, for our colleges and universities, more so than it has been in the recent past. For that reason I am very grateful to Bill Pierce and everyone else who has put this program together by giving attention to the precise topic of teacher education. I have some comments I want to share with you. After that I would be more than happy to receive your suggestions, criticisms, and questions on any of the matters I touch on, or any matter that is germane to your deliberations here.

What is an integrative teacher education system?

I think it might be worth taking a moment or two to try to answer the question, "What is an integrative teacher education system?" It certainly sounds good, and it is a notion that is rather comforting because the science of organizational and systems behavior does speak of integration of systems. Integration is a comfortable word because it denotes a certain degree of harmony and unification in which various participants in a process come together and form a whole out of which some

good things presumably can transpire. But integration of activities, and especially activities that involve human beings, education, and all the vicissitudes of human behavior, is an extraordinarily complex question. Each of the separate parts to a process—in this case, teacher education—has its own unique history, strengths, weaknesses, and specialized protocols or tribal customs. And, thus, integration can be achieved only when distinct entities identify a common problem and come together under some kind of shared value system to address that problem.

I think it is obvious to all of us who are involved in education and in teacher education that the agenda is here and now. There has been a tidal wave of reports and recommendations, and that has been very good. I am among those who believe that once a task force or task forces are in place and making their reports, that the problems, while perhaps not solved (if they are indeed solvable), are really on their way to being addressed. The changes are occurring through the very fact that these various reports and commissions that have addressed our nation's schools, colleges, and universities have come together.

I think this issue is one that will stay with us not only because education has always been central to American democracy, but also because there is a heightened sense of public awareness on the part of informed and active citizens, politicians, leaders, and civic associations that, if the United States is to be in a leadership position, in the best sense of that term, in the next century, we need to strengthen and improve our nation's schools and universities, and by definition, therefore, we need to strengthen and improve our teacher education systems. There is a quotation from Henry Brooks Adams that I like very much. To paraphrase, he once commented that, "Teachers affect eternity. They can never tell where their influence stops." I think that is true for all of us. I understand this morning Ernie [Boyer, President, Car-

negie Foundation for the Advancement of Teaching] spoke about some of the teachers who had made an impact on him. They have affected eternity by influencing Ernie Boyer, just as everyone in this room has been affected by some great teachers. Teachers are central to the enterprise. It is very important that we work together to see what we can do to promote public understanding about teacher education and develop ways to improve our teacher education systems.

How can universities contribute to the building of collaborative and integrative systems for teacher education?

That leads to the question, "How can the universities contribute to the building of collaborative and integrative systems for teacher education?" I would feel comfortable asking, "How can we work together to build better systems of teacher education?" If we were to address only one element of this question, but a very important one, I think we would look at the internal organization and operation of universities and the external responsibilities that universities and colleges have in working with other sectors of education. I would like to begin with the internal aspects, specifically with the measures that teacher education programs are taking with regard to self-analysis of their strengths and weaknesses. I believe that those kinds of evaluations, regardless of where they lead, are fundamental to continued improvement in teacher education. It is a sign of strength when an institution or an enterprise is willing to examine itself, and identify and debate its good points, weak points, and needs for improvement.

That is a responsibility of the college and university presidents, the deans (not only college of education deans), and the faculties under the leadership of their deans, academic vice presidents, and presidents. That is the responsibility of taking a close, hard look at what we are doing, not doing, and might do better. Clearly, it is our responsibility, because, like it or not (I think this is for the better), the initial elements of teacher education are going to occur primarily within our colleges and universities. The preservice instruction is going to continue to be there. And it is critical that we assess our preservice teacher education programs, and that we try to take all the different steps needed to produce the men and women who will be effective teachers in the many dif-

ferent kinds of settings in which they will have to work. There is no single solution. Anybody who tells us there is is hoodwinking us.

It is also critical that within our universities we have real internal collaboration between our colleges or schools of education and our colleges of liberal arts and sciences. I think we are better off than our critics may think in this regard. There are some superb people not formally or primarily assigned to our colleges of education who do accept teacher education as one of their fundamental responsibilities. There are excellent people in our more formal colleges of education who have not only welcomed but also encouraged this kind of development. It is overdue; it should have happened many years ago, but that takes us into questions of history that need not concern us today. But it is fair to report that there is quite an enthusiasm on the part of many faculties and deans in the liberal arts and sciences to involve themselves, not in a patronizing way, but in a truly collegial sense, with teacher education programs.

Our colleges and universities must not only collaborate and integrate teacher education efforts internally, they must also relate to a myriad set of actors and actresses. These include the chief state school officers, the state departments of education, legislative and executive leaders of our state, and private and civic institutions in our society that are concerned with teacher education. There has to be dialogue between universities and colleges and their teacher education programs, and those external constituencies. There has to be more than dialogue; there has to be collaboration.

The relationship between the university's teacher education program and the schools is of utmost importance. The university's responsibility for preservice teacher education is fundamental to the success of the teacher and, ultimately, to the success of the nation's schools, which rely on universities to supply the needed numbers of new teachers at the quality levels required.

In addition teacher education programs have special responsibilities for the education of new teachers—those in their first, second, and third years—who at the very outset begin to form professional patterns, opinions, and conclusions that will either keep them in the teaching profession, or, as is too often the case, lead them to seek professional fulfillment in

other fields. If new teachers' initial experiences are good ones, the likelihood increases that they will find the rewards that, as young professionals, first attracted them into teaching—and that they will remain in the profession. It is imperative that special attention be given to the beginning teacher to provide the on-the-job support that is necessary to ensure their success.

Teacher education programs also have a responsibility for the continuing professional education of experienced teachers. Such programs must be thorough, intense, carefully tailored to individual needs, and well supported by school administrators and professional organizations. Reimbursement for continuing professional education should be available to all teachers wishing to continue their study in disciplinary areas or to enhance their teaching skills.

Finally, teacher education programs must provide assistance to school administrators through graduate and continuing education programs. These administrative programs must permit and encourage study in departments other than teacher education. For example, courses in management information systems, human relations, law, and other areas of specialization essential for administrative effectiveness must be available through our colleges and universities to school administrators.

In another dimension of collaboration, we must encourage our own teacher education programs to work closely with the teacher education programs of our neighboring colleges and universities. In this area, perhaps above all, we have not moved as far or as fast as we should have. The sharing of information, the collective consideration of statewide problems, and the creation of an attitude of unity and mutual respect can be accomplished if the deans, vice presidents, and presidents of our institutions are successful in setting the tone for cooperation and for supporting efforts leading to effective interinstitutional collaboration. There are some success stories in this effort, but not many. It is an area that requires our renewed advocacy and direct attention.

Another external relations role of university teacher education programs centers on its relationship with the state departments of education. Here, too, we find examples of effective collaboration. Thus, in my state of Missouri, as a result of discussions with Dr. Arthur Mallory, Missouri's Commissioner of

Education, who is an avid proponent of this kind of collaboration, we are going to try to match our verbiage with practical deeds. The University of Missouri is seeking in its 1986-87 operating budget request to the General Assembly a special appropriation to establish, in cooperation with the State Department of Elementary and Secondary Education, a continuing program of research and study designed to help monitor and improve preservice and inservice teacher education in the state. Under this program we propose a study on intervention techniques to reduce dropout rates and a study on the efficiency of certain compensatory learning opportunities at the elementary and secondary levels. These activities will be carried out as a joint partnership between the University of Missouri and the Missouri Department of Elementary and Secondary Education. Commissioner Mallory and I are enthusiastic about this new opportunity to work closely together to develop an effective and ongoing relationship between the university and the state department.

One of the goals in the recently approved long-range plan of the University of Missouri states:

The University will provide leadership in assisting the State to improve the quality of education in the public school system and will encourage faculty, especially, within the colleges of Arts and Sciences and Education, to work as partners with the Missouri Department of Elementary and Secondary Education, public school administrators and public school teachers.

As a consequence, a University of Missouri task force has been created to determine specific ways in which the University might assist the state in improving the quality of Missouri's public schools. The task force is scheduled to submit its report in September, with specific follow-up activities.

As this collaborative broth is beginning to boil, another important ingredient we should not overlook is the role of the state legislators and the governors. Leadership in support of improvements in the schools and teacher education merits the leadership of our state elected officials not just in 1985, but for years into the future. Colleges and universities can

play an active and supportive role in improvements in state support for schools and teacher education.

Again, if you will permit me to share an example from Missouri, I can report that the General Assembly passed, and the governor signed, the Excellence in Education Act of 1985 to encourage and promote quality in Missouri schools. It is in our collaborative best interest at the state level to work together for such legislation and for appropriations to provide teacher education scholarships, improved salary and working conditions for teachers, support for continuing professional education, and a range of benefits essential for the achievement of each state's education goals.

National Commission for Excellence in Education: Recommendations for Teacher Education Programs

From a discussion of the internal and external possibilities for collaboration, I would like to move to a quick review of the work of the National Commission for Excellence in Teacher Education.

In the search for workable, creative solutions, a number of national reports have come forward. You are familiar with them, and I will not belabor their contents here. However, as Chairman of the National Commission for Excellence in Teacher Education, I would briefly like to review the Commission's recommendations related to teacher education.

As background, I should add that the study was conducted with the support of the American Association of Colleges for Teacher Education and the U.S. Department of Education. This Commission, comprised of a panel of leading educators and elected officials, completed its study in February 1985 with recommendations on five major topics:

1. The supply and demand of quality teachers.
2. The programs for teacher education.
3. The question of accountability for teacher education.
4. The issue of adequate resources for teacher education.
5. The environmental conditions necessary to support high quality teachers and therefore the highest quality of teaching.

The Commission found that there are legitimate issues which must be addressed by our teacher education programs. To cite but one

piece of disturbing evidence, a recent poll of teachers showed that only one-half rated their training programs as "A" or "B" on the most commonly understood grading scale in our society—while fifty percent of the teachers polled rated their programs as "C", average at best, or worse. Change, very simply, is imperative.

The National Commission recommended that those entering the teaching profession attain an academic concentration in a genuine liberal arts curriculum. Also, it is all too easy to ridicule "how to teach" courses; those that are easy should be ridiculed. But teaching combines both art and science, and while it must first and foremost proceed from a strong and rigorous base of academic content, a teacher must know how to communicate that content. Our nation's new generation of teachers must have the knowledge to teach students of different ages and backgrounds, and to help students overcome difficulties and errors. No less important, our nation's teachers must benefit from the solid base of organized research that contains vital information about teaching—information that comes from practical and documented experiences. And, yes, this is a technological age. Our teachers must know how to integrate technology imaginatively into effective teaching practices.

The Commission offered three recommendations under the topic of teacher education programs. The first is that each teacher education program should be built around an exacting and intellectually challenging integration of general liberal studies and specialization in an academic major and the academic content and practice of professional education. We argue for demanding and sequential programs, programs that inescapably will require longer periods of study than are now required by most colleges and universities.

The second recommendation is that, following their completion of a teacher education program and the awarding of a provisional certificate, new teachers should complete an induction period or an internship of at least one year during which compensation would be provided.

Third, we recommend that states encourage and assist the evaluation and development of experimental teacher education programs. We ask that states provide genuine support and resources to colleges and universities that wish to develop new approaches in teacher educa-

tion—not merely modifications of existing courses, but significant structural changes.

What is the role of the university president in the improvement of teacher education?

There are obviously as many answers to this question as there are college and university presidents. However, without drawing sharp parallels to the nature of the problem, I think we can usefully compare the role of the president in teacher education with the role that the president is beginning to play in intercollegiate athletics. Today, we are seeing university presidents pay close personal attention to solving problems in intercollegiate athletics. This is as it should be. It is overdue.

Similarly, it seems to me entirely appropriate, if not even more important and longer overdue, for college and university presidents to play direct and immediate roles in supporting and encouraging the development of quality teacher education programs. As institutional presidents, we can promote excellence in teaching, and take an active and leading role in curriculum design, support for technology-based education, and self-assessment in teacher education. The president is not the primary player in this arena, but he or she can do a great deal to set the tone and create the agenda in cooperation with deans, faculty, and students.

But college and university presidents can, and should be, critical participants in building collaborative and integrated systems for teacher education. They can provide leadership in reducing the complexity that surrounds this national educational challenge. They have managerial skills, access to all of the key participants in the educational process, and can obtain media attention—if they choose to get involved as educational leaders.

The teacher education agenda is a critical one for our nation, for our schools are our highest priority. Broad public involvement is both welcome and inescapable (e.g., intervention of governors/legislators), but educational institutions and their leaders must provide leadership. That is the challenge, and that is the agenda if we are truly to integrate collaborative and effective systems of teacher education.

HENRIETTA SCHWARTZ (Dean, School of Education, San Francisco State University):

What has happened with the Commission report? Has there been any follow-up on the recommendations? Will there be something beyond the report?

DR. MAGRATH: I hope so. The reason I hesitate is that I do not really have a good answer. Like many sets of recommendations, this one depends on who is prepared to take it seriously. For instance, some of the individuals active with the American Association of Colleges for Teacher Education and I did communicate with Secretary William Bennett and offer our services, either individually or as a commission, since he himself has gone about appointing certain committees and task forces to look again at certain issues. However, in sum, his judgment was that he did not need our help, he knew what we had said, and he was going to set his own agenda. Secondly, we have distributed the report very widely, and I sincerely hope that some college and university presidents (I feel somewhat of an obligation myself) will try to implement and address these issues in our own states, colleges, and jurisdictions. I believe this is how any improvements are going to take place.

There is never going to be a report that says, "This is what we should do," and everyone reads those marching orders and marches. I do believe that the report becomes part of the dialogue and the thrust that says, "Teacher education is important: maybe we should look at not only our budgets, but also the way they are being used with regard to teacher education programs." Maybe we ought to pick up the telephone, or get in our cars, and talk to our state superintendent and superintendents in local districts. Some individuals are going to take those recommendations to heart, as well as recommendations of a somewhat similar, but sharper, kind that have come from other reports.

GORDON AMBACH (Commissioner of Education, New York): On university campuses, it is quite generally recognized that the rigor behind a Ph.D. or a master's degree in arts and sciences or technical fields outside of education is greater than the rigor applied to graduate degrees in education. This may not be true on every campus. Is it possible that presidents and universities can make education programs as rigorous and strong as those in other areas? Perhaps this could be done by drawing the

faculty from the other areas into the process of peer review.

DR. MAGRATH: Both your comment and question are excellent. It is unfortunate but true that the doctoral programs in teacher education are not regarded as being as rigorous and strong as comparable programs in the arts and sciences. There are significant exceptions, but the perception is there, and there is substance to the perception. In part, the situation is a consequence of the relative isolation of our teacher education programs in our nation's colleges and universities.

I am going to be very blunt in what I say, but I say it out of growing appreciation and great respect for the many good teacher education programs that exist. Generally, it is fair to say that teacher education/college of education programs are second-class citizens in most of our colleges and universities. They are not accorded the respect that is generally given our programs in engineering, physics, history, English, and so on. Why this is so, I suspect, is a long and complicated story. After all, isn't being a teacher a professional endeavor? Look at the lower salary structures for teacher education professors. It is true that salaries for humanists and those in art and music also lag because the hard world of the market dictates that. But in terms of facilities and buildings, faculty salaries, and various paraphernalia that accompany them, the schools of education are essentially second-class citizens. That is wrong. If you are treated second class, you act second class.

An encouraging sign is that there are some first-class individuals in teacher education. I know many of them, and will match their research work with that of good engineers and good arts and sciences professors. We have a strong cadre. We also have a nucleus of individuals (for example, the Dean of Arts and Sciences at the University of Missouri-Columbia campus, a first-rate dean) with impeccable academic credentials, who are genuinely interested in getting involved in teacher education. We are working, for instance, to initiate real joint appointments and collaborative activities in our doctoral and undergraduate programs between individuals in arts and sciences and our teacher education people. Through this kind of activity, public attention and scrutiny from people such as the chief state school officers, and the growing perception on the part

of college and university presidents that teacher education ought to be treated with at least as much concern and attention as intercollegiate athletics, I think there is a chance to make some change for the good.

RUTH RANDALL (Commissioner of Education, Minnesota): What is your perception and that of your task force on teacher supply and demand? Some believe that rigor and actual changes in teacher education programs cannot be brought about because the supply of teachers is not available.

DR. MAGRATH: We took the position that we should not compromise standards to alleviate teacher shortages, particularly shortages in various specialty areas. I urge us all to stay hitched on this. The worst thing we can possibly do is relax standards to meet the supply side of the equation at a time when we need to raise standards. This is not to dispute the fact that there are good men and women out there who have been in the teaching profession, who are not in it now, and who, with some retraining and re-involvement, can be very useful participants as teachers. We cannot simply relax standards, go easy on certification, or say, "You all come. If you have a liberal arts degree, we will give you a job and you can teach. Your salary will not be very great." I think that is a prescription for disaster. We are better off saying, "Darn it, if we do not have enough qualified teachers to teach computer science or mathematics, we are not going to pretend that we are teaching computer mathematics."

If we can maintain the standards, I think we can attract good people, because people are attracted by standards. If we can develop systems in which we can allow teachers to function more as professionals, with more discretion, we can attract some of the best and brightest. We all know it is a dreadfully complicated endeavor as to how we go about it. Although I am by no means opposed to testing, simply developing lots of tests is not going to solve the problem. They may be useful in certain ways, but any notion that tests by themselves solve the issue of standards is naive.

JAMES SCHNUR (Dean, University of Southern Mississippi): One coin of the realm in higher education has not been addressed: student credit hours. Many of us in colleges of education are driven very hard by the notion

of student credit hours. Our enrollments are down; therefore, our student credit hours are down. As a result, we do not hear things like, "Your faculty will receive high meritorious raises as will the faculties in colleges of business and computer science," or, "We will pay you to go out and hire faculty at more than the going rate because the market demands that." What is your perception of that problem and what are your solutions?

DR. MAGRATH: I agree that there is considerable substance to the point you are making. I believe that if our colleges of education, including their faculties, are prepared themselves to make some hard internal decisions, reallocating resources where the need is no longer great—given that they are in an environment with deans or provosts or presidents who do understand the importance of teacher education—I think it is possible to get away from the notion that the funding for a college of education ought to be exclusively or predominantly driven by student-credit-hour production. To the extent that that is currently the way in which we fund, the problem that you state exists. We need to generate from key faculty and deans (and there are some good ones out there) some tough reassessment and internal reallocations.

This is not to dispute that high technology and computer science are very important. We are all very much on the side of improving our business programs. They all have market appeal. However, to the extent that the public appreciates the importance of education, and this appreciation is greater today than it was ten or fifteen years ago, it is possible for us to provide adequate resources, beyond what currently exists, to improve our teacher education programs and salaries of teacher educators, and to give merit pay to the really exceptional teacher educators. I think that can be done. It is not going to happen because of pronouncements by Peter Magrath, but I honestly think it can happen in the arena in which we are working.

A minor but specific point: I amended in a legal way the request budget for my university for next year and got it approved by my board. I added a quarter of a million dollars to the request. The Commissioner of Education in my state, Dr. Arthur Mallory, will seek another quarter of a million dollars. This money, which has no relationship to formulas or stu-

dent credit hours, will fund, not salaries per se, but some teacher education program ventures that have no relationship to the number of students enrolled. Again, that is not a complete answer to your question. But things can be done, and we can get public support. Frankly, our colleges of education are going to have to be flexible and work with those deans and presidents who have gotten religion on that subject.

GERALD N. TIROZZI (Commissioner of Education, Connecticut): We heard a presentation this morning on moving toward a five-year program of teacher education. This is being debated in many of the states and may at some point become a national petition. I understand your committee said "no" to the recommendation. What were the politics behind this recommendation?

DR. MAGRATH: I will be glad to explain that to you. In the first place, let me say that I do not want to be too prescriptive because I tend to be skeptical of any person who says, "Go to a five-year program. That solves the problem." First of all, I personally favor going into a five-year program for all kinds of reasons. It is worth trying selectively at colleges and universities. I intend to promote that in my own state. The commission that I chair was split on this issue. Because the committee chair must be sensitive to human relations, if not political needs, I had to play a somewhat neutral role. The largest number of my colleagues favored going into a five-year program, but five or six individuals felt very strongly that the adoption of this recommendation would be a serious mistake. I decided not to try to force the recommendation through for fear of totally losing four or five people from the report who had a great deal to offer, and who were basically in agreement on virtually every other point. To resolve this, we made a statement that, if carefully read, speaks for an elongation or an extension of the program, and then included a signed footnote by a majority of the commissioners saying that they personally favored a five-year program. In fact, that brought the issue out quite clearly.

I might add that one of the smaller teacher education colleges in the state of Missouri has initiated a five-year program. A number of schools are doing that. I think it is worth pursuing, not as a panacea, but as something to look at closely.

THE STAGES OF TEACHER PREPARATION

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Thank you very much. I greatly appreciate the invitation and opportunity to speak with you today. I have to admit that I approached the topic of teacher preparation with some trepidation. How could I organize a massive body of research into a single cogent presentation? I decided to examine several related questions. What do we know about the way teachers learn to teach? What makes teachers want to learn? What do they need to know at various stages in their careers? And finally, the crucial question, why do we need to concern ourselves with all these questions?

As professional concern with educational quality mounts and as an understanding of the centrality of the teacher deepens, the evidence accumulates that the teaching workforce in American schools is indeed sorely troubled. One of the most striking features of the teaching population is its "graying" or relative oldness—the average age of teachers is about forty-five—a finding that takes on special significance with the knowledge that there is little relationship between teachers' years of experience and their classroom effectiveness. In fact some studies have found that after five years teachers' success with students actually begins to decline. A second disheartening finding is that teachers' ongoing professional education—whether through district sponsored inservice programs or through advanced professional degrees—has little benefit for teachers' instructional improvement. Worse still, preservice programs, as we currently know them, leave beginners wholly unprepared for the realities they confront with their first class of students. Indeed, when experienced teachers look back on their formal inservice training the majority of them remember their education course work as too theoretical and not sufficiently practical. In fact, the only aspect of preservice preparation teachers do find helpful is the opportunity to work with youngsters during their student teaching placements, but elementary and sec-

ondary school, not universities or colleges are the real providers of that experience. A final noteworthy point in the sorry condition of teachers' learning is that teachers defect from the workforce in substantial numbers and also absent themselves from work simply because they lack opportunities for professional growth. Together these findings underscore a pressing need to understand how teachers can acquire and develop better skills.

Learning to Teach

If teachers don't acquire sufficient knowledge during their preservice preparation, how then do they learn to teach? Mostly they learn on the job; however, the skills the teachers acquire and their potential for growth depend mostly on characteristics of the workplace itself. Most schools are characterized by isolated working conditions in which teachers spend large portions of their days physically separated from colleagues without benefit of seeing or hearing others teach. But isolation is more than physical separation. It means that teachers have little opportunity to interact with colleagues and little chance to support one another professionally. In isolated settings teachers come to believe that they alone are responsible for running their classrooms—that teaching is an individual enterprise—and that to do it successfully requires maximum autonomy. In fact, in isolated settings, teachers consider autonomy to be something of a moral imperative. They feel clear moral constraints against asking for or offering assistance to their peers because teaching success, after all, is expected to result solely from the individual's efforts. In other words, requests for and offers of assistance carry status information about the failure of teachers to execute their individual teaching responsibilities. Teachers tend not to request advice and assistance for fear of appearing incompetent; teachers tend not to offer advice and assistance for fear of implying incompetence.

Where teachers are cut off from their colleagues for major portions of the school day the effects are profound. There is little opportunity to develop collectively held notions about what is important about teaching and how one's success should be gauged. Indeed, under isolated working conditions, teaching goals are strikingly individualistic and require indicators of effectiveness that are based upon teachers' personal beliefs about what should be learned. It is not surprising, therefore, that informal relations among teachers seldom center around the substance of teaching as a common work activity. That is, when teachers in isolated settings talk together, their conversations are rarely about instruction. Instead they talk about social matters, or engage in "experience-swapping," where problems about hopelessly uncooperative students or parents are shared sympathetically. I remember one day from my own teaching experience, walking into the faculty room and saying, "Mary Ellen McGovern is driving me crazy." One of my colleagues looked up at me, smiled, and said, "Yeah, but wait 'til you get her brother Joe. He's even worse." Non-productive conversational exchanges such as these may be emotionally supportive, but they have unintended and negative consequences because they reinforce the idea that professionally teachers are in fact alone, that most teaching problems simply have no good solutions.

We find that a number of learning problems arise for teachers in isolated settings. First, they rely exclusively on trial-and-error learning. Their capacity for growth is limited by their own ability to diagnose problems, develop solutions, and choose the best alternative. Second, they do not look to their own contemporaries in choosing models of teaching excellence. Instead, teachers typically fall back on recollections of good teachers that they had from their own student days. Third, without access to pure expertise, the likelihood of learning any pre-existing body of practical knowledge is small. Teachers therefore are less able to perceive and interpret daily classroom events which might be easily understood if they had access to an already developed discourse.

Fortunately, not all schools are isolated settings. The most effective schools, schools where teacher and student learning is greatest, operate collaboratively. Rare in number, collaborative settings nurture fundamentally dif-

ferent assumptions about the nature of teaching. It is believed to be a collective, rather than an individual, enterprise. In collaborative schools, professional dialogue among colleagues is frequent, and analysis, evaluation, and experimentation in concert with others set the conditions under which teachers improve instructionally. Compared to their isolated counterparts, teachers in collaborative schools interact more about professional matters, and they interact with a greater number of colleagues. A technical culture develops in these schools. Ideas that are the product of collaborative exchange give rise to greater experimentation in classrooms that leads ultimately to teacher learning, as better solutions to classroom problems are found.

But norms of collaboration do not just happen. They are not the result of serendipitous combinations of individuals. Instead, they appear to be the deliberate product of greater instructional leadership by principals or their administrative assistants, who, guided by a belief that teachers can become more effective, ensure that the workplace provides frequent opportunities for teachers to talk. They pair troubled or beginning teachers with more expert colleagues. They create committees to design inservice experiences. They provide release time for teachers to observe their colleagues. And most of all, they join with teachers in making instructional decisions—for example, selecting appropriate materials, determining methods and techniques, and so on.

Beyond this, principal collaboration with teachers is fueled by their visions of the school, exemplified best in their setting of specific goals for student performance. Shared school goals are critical to teacher learning for three reasons. First, they communicate directly the principal's expectations that teachers are, in fact, capable of making progress. Second, shared goals provide a way to decide how to organize, motivate, evaluate, and reward participants within an organizational setting. Without common goals, for example, administrators have no way to decide how to evaluate teachers in their schools, and teachers have no way to decide what to emphasize in their teaching. Improvements in the performance of teachers then become unlikely or random, without a clearly perceived need. Third, without common goals, there can be no collective expenditure of effort on the part of teachers,

and no basis for professional dialogue. It is altogether likely, therefore, that teachers will point their efforts towards improvement, if they make them, in entirely different directions.

Principals' strategies for evaluating teachers also help them become good colleagues. Teacher learning depends to no small extent on demonstrated need for new skills. But teachers in isolated settings do not know precisely how well they are doing, leaving many of them in no position either to identify improvement needs or to re-direct their energies toward betterment. Effective principals or their administrative cadres, guided by both the certainty that teachers can learn and their explicit learning goals, regularly monitor classroom affairs, provide helpful suggestions and feedback, and deploy extra support services—particularly other teachers—to those needing special assistance.

It also turns out that school administrators and teachers are helped or hindered in their improvement efforts by what goes on in the district office. The most effective schools—where the greatest teacher learning takes place—are in districts where the superintendent and central office staff themselves set instructional improvement agendas, help principals both to set their own school goals and evaluate teachers properly, provide principals with learning opportunities and leadership apprenticeships, supply resource people to work with teachers individually, and allow for the input of teachers and principals in determining district needs. Certainly a superintendent who initiates experimentation and change in his or her own district sets the tone, invitation, and expectation that others will do likewise in their schools.

In sum, the process of learning to teach is determined largely not by outside factors over which schools have little control, but by organizational conditions that are amenable to policy manipulation and change. But effective schools and districts are rare. The majority of the teacher work force still works in professional isolation and learns to teach by experience. It takes them about five years before they reach their prime effectiveness. Thereafter, because they have exhausted their personal repertoire of ideas, their performance either stays stable or begins to decline.

As teachers use the same instructional techniques over an extended number of years,

there is a tendency to become bored and lose interest, particularly where there is no outside stimulus to counter professional stagnation. I might add also that we mostly see patterns of high teacher absenteeism or attrition in schools where teachers suffer from professional isolation. And I want to make one final point before moving on. When we ask teachers in collaborative settings how long it takes to learn to teach, the majority of them—even those with twenty years experience—say, "I'm still learning." Teachers in isolated settings report that it takes them about five or six years. This in itself offers evidence that different school cultures construct profoundly different teaching realities for teachers.

Teacher Motivation

Next I turn briefly to the question of what motivates teachers to learn. Teachers are no less complicated than other professionals. Their productive involvement in work, first and foremost, requires challenge. Challenge stimulates involvement by requiring that individuals exercise judgment and choice. In doing so, they become the main factor in their own performance. Further, coping with challenge requires the expenditure of effort, and if by trying, teachers produce some improvement in their performance, their commitment to learning is enhanced. After all, when each of us decides to do something, we are always delighted when we muster our best efforts and succeed. We don't commit this energy or experience this kind of pleasure, however, if the choice of what to do, or how to do it, is taken away.

Of course, teachers at different stages in their careers require different sorts of challenges. Beginners find that everything about teaching is a challenge. Where they receive no guidance or support from experienced and successful teachers or administrators, they undergo severe "reality shock," as idealism yields to the understanding that before one can teach, it is necessary to do many things, including managing students' sometimes unruly behavior. In isolated settings, reality shock prompts rather negative work orientations. The view that each student has different learning needs gives way—usually within the first year—to a custodial view, where the maintenance of order is stressed, students are distrusted, and a punitive attitude toward con-

trol prevails. Beginning teachers in isolated settings feel powerless. Their emphasis on maintaining order, and on the uniform treatment of every student, limits their discretion.

Often these challenges overwhelm beginners. People move to confront challenge only when there is a reasonable chance of success, some assurance that their efforts will produce the outcomes they seek. Teacher certainty centers around ability to understand youngsters' capabilities, to specify goals for them, and to evaluate their own contribution to students' gains. The teaching novices in isolated settings lack the skills, support, and certainty to help them successfully confront work challenges; so many of them simply give up.

Not only do we find that beginning teachers are those most likely to defect from the work force, we also lose almost half of them before they begin their fourth year of teaching. It is more than just bright, able bodies that we lose. Newcomers bring valuable personal resources—hope, energy, fresh perspectives—that under other circumstances could serve to renew older teachers' professional commitment as well.

As you might anticipate, we do not find the same defection rates for beginners in collaborative settings. Here they appear to maintain the view that tending to the individual needs of students is important. Their emphasis on skill development, particularly skills in managing student behavior, helps beginners avoid a custodial attitude, which in turn lessens the reality shock. New teachers in collaborative settings feel far more certain about their abilities to help students learn, more certain about what students ought to be learning, and more certain that technical help and assistance is available as they need it. Such certainty helps them confront the challenges of teaching better.

Let us consider the experienced teacher next. What characterizes professional work is a sequence of problems and challenges that get ever more important and therefore provide opportunity for greater recognition and skill utilization. Thus we find that collaborative settings benefit experienced teachers by empowering them. Rather than administrators holding teachers back and forcing them to comply with overly prescriptive rules and procedures, they encourage teachers to develop and use whatever tools they can to get good results. Powerless teachers become turf-

minded. They build fences around their own domain (the classroom), and feel blocked from the influence and respect of people around them. This is, after all, what teachers' autonomy is all about.

The powerful, on the other hand, can afford to be expansive—they have flexibility, support, connections, and importance. They have more than just their own little piece of the hill. And no wonder veteran teachers in collaborative settings feel more powerful and skilled than their counterparts in isolated settings! Because they serve as mentors to novices, they are able to use their expertise to socialize, advise, and help junior colleagues improve. The collective repository of ideas, techniques, and models that teachers build in concert with colleagues and administrators, like a centripetal force, pulls them towards the same mission of professional improvement so essential to their continued commitment to the school. It is not surprising, therefore, that these kinds of working conditions substantially reduce teachers' defection and absenteeism.

Stages of Teacher Knowledge

Now we come to the final question: What do teachers need to know in various stages in their careers? Earlier I noted the failure of colleges and universities to provide the course work and experiences that help beginning teachers to succeed and experienced teachers to improve. It is time for us to examine what does and does not go on there, and its future possibilities.

Consider first the way teacher education is structured. At the elementary school level, preservice teachers progress through a series of "how-to" courses: how to teach reading, how to teach math, how to teach social studies, and so on. These "how-to" courses in the past have emphasized much of the professor's own personal philosophy of teaching and far too little research knowledge.

Why is this the case? For one thing, there are over 1,200 teacher preparation institutions across the nation, and less than a tenth of those institutions engage actively in the production of knowledge. For another thing, researchers with scholarly credentials often do not concern or involve themselves with the education of teachers, instead choosing to focus their energies on the education of graduate students. Finally, until recently, re-

searchers have been unconcerned about the fact that their findings seldom reach those who engage in the preparation of teachers.

Armchair philosophers serve neither the interests nor the concerns of teachers. Classroom teachers' concerns for practical application are quite rational because their professional lives will be spent out there in the trenches. Beginning teachers are not particularly interested in, therefore, the principles of democratic education set forth by John Dewey. Instead, they want techniques for dealing with the student who has contentiously refused to comply with directions. Teachers are also demonstration-minded. They want to know and to see how techniques can be implemented, and what consequences a particular choice will have.

While efforts to prepare beginning teachers have changed little over the course of the last two decades, in the meantime we have undergone a quiet revolution in our knowledge about effective teaching. We have accumulated, for example, much knowledge about classroom management. We know that good classroom managers use well-organized lessons which enable them to have through instructional activities at an appropriate pace, and thus maintain students' focus of attention and engagement. Effective teachers continually monitor classroom affairs and detect inappropriate student behavior before it becomes a major classroom disruption. They also do a great deal of planning and classroom organization before the school year begins and introduce rules and procedures during the first two weeks of school, treating them as part of the instructional content.

But the fact remains that too little of the research base we have acquired over the past two decades is making it into the real world of teacher preparation programs, despite consistent data that these skills can become part of the teacher's instructional repertoire. I am hopeful that this sorry state of affairs will change. The National Council for Accreditation of Teacher Education (NCATE) has recently modified its evaluation standards to incorporate research findings. That is, the forty-two percent of the teacher preparation institutions which are currently accredited by NCATE will now be judged according to how well they measure up to the new research-driven standards. Leadership of both the American Association of Colleges for Teacher

Education and the National Institute of Education has launched major efforts to encourage utilization of research on teaching.

But these efforts alone are not enough. Too much of a prospective teacher's education takes place outside of the elementary and secondary schools where they will eventually work. While there is evidence that teacher education programs are increasing their emphasis on field experience, the quality of those additional hours spent in classrooms is in no way assured. Teacher preparation has long suffered from an absence of good models. And so we see the general tendency for field experiences to produce and perpetuate ineffective instructional strategies. Once the reality of teaching life is accepted and acquiesced to, it loses its power to contribute to further education. In this sense, experiences which promote uncritical replication of observed practice are antithetical to the purposes of education itself.

Further, good teaching models that are available are sorely underutilized, because student teachers, like the colleagues they will ultimately join, are reluctant to seek advice and assistance. When we ask teachers from the most effective collaborative schools, "What do you think is the most important thing for beginning teachers to know?," this is how they responded:

"If you've got a problem, talk to your colleagues. You've got to know that you can turn to other people. You need to know that turning to other people is not an indication of incompetence. Just like any new job, you need support, and you shouldn't be afraid to ask for help."

"Beginning teachers can't work miracles. They should not be afraid to ask for help. I've heard so many teachers say, 'I know this is going to sound stupid, but,' and then they will ask the question. It's not stupid at all. It's been asked a thousand times before."

"Beginning teachers must have patience with themselves. They think they are expected to be perfect at all times. They think they can change the world. When they can't do everything, they get upset with themselves and the

children. New teachers should remember that things will get better, so don't give up. I've seen some new teachers take twenty hours of work home every night. When they don't succeed on their own, they start bringing home less and less. After a few months, they are only taking home their pocketbooks."

Every year about half our student teachers decide not to enter the profession. For some, the decision is based on the realization they simply do not like the work. But for the majority, the decision is based upon personal despair—the loss of optimism that teachers can, after all, make a difference. In this case their despair is based on the type of contact they had had with practicing teachers, and the sorts of models that those teachers represent. There is a good deal of evidence that students' attitudes become more custodial and negative during field experiences, and that students become more concealing and less willing to share with their peers. It is possible to interpret these declines not as a result of the influence of practicing teachers, but rather as the growth toward realism. But again, in collaborative settings, the reality that takes shape is altogether different. Here, reflection and analysis with practicing teachers brings on greater certainty about the student teacher's professional skills, greater clarity about instructional purpose, and greater hope that future learning will occur. Thus the very same organizational conditions that influence ongoing professional growth of practicing teachers need also to be applied to preservice preparation as well.

Clearly the learning needs of experienced teachers must also be better served by colleges of education. In addition to keeping them informed about the most robust research findings, we need to provide them with successful ways of mentoring, evaluating, and modeling successful strategies for others, ways for sharing in the leadership of schools, and ways that keep them reflective and critical about their own and other's instructional practices. We do not do this now.

Let me also make a final observation that the preparation of teachers and their ongoing learning cannot be considered apart from the preparation of administrators at all levels. If supervision is to result in an understanding of

the teaching process, we must supplement current preparation programs with the knowledge, skills, and cooperation that makes such a joint venture possible.

Thank you very much.

LYNN SIMONS (Superintendent of Public Instruction, Wyoming): I wonder if you would comment on the implications of merit pay on collaborative schools?

DR. ROSENHOLTZ: It has very dangerous implications. One of the problems with merit pay is that it sets up a system of scarce rewards where people have to compete with one another to earn those rewards. Obviously, if teachers begin to compete with one another, they close off avenues of professional sharing and deliberation. This in turn influences not only their own learning but their ability to succeed with students, so that merit pay in and of itself will countermand any efforts to make schools more collaborative places.

There are some other problems as well. I might as well articulate some of them for you. I'm doing, by the way, a fairly extensive examination of merit pay, career ladder basic skill programs in a particular southeastern state. One of my findings thus far is that there are many things that influence teachers' willingness to work with one another. When you reward teachers differentially, give them different amounts of money, and the system that you use to reward them is not perceived by teachers themselves as legitimate (that is, it doesn't legitimately differentiate between them according to their skill levels), not only do you create inequities, you also create incredible status problems. What happens is this: if I am a teacher and I see the person next door being rewarded while I am not, and I feel that the basis upon which that reward was made is not legitimate, I am going to try to establish a more solid base of equity in the setting. To do that, I am going to lower my own commitment. I am going to invest less, because then I will feel that at least somebody is putting forth more effort than I am. That principle, by the way, is called the principle of distributive justice, and we see it operating very strongly in some schools now.

BILL HONIG (Superintendent of Public Instruction, California): One of the problems or dangers in insisting upon a research base or

data framework for teacher preparation is that we don't have the research in some of the very areas that we know are necessary for preparing teachers properly.

DR. ROSENHOLTZ: That is right; and we know that certain instructional objectives require altogether different teaching practices than others. We are beginning to develop a more differentiated approach to research on teaching and teaching effectiveness. We are now looking at problem-solving behaviors on the part of students, and what teachers do to encourage those things. We are making great strides, but clearly we do not have a strong enough data base to call the shots for all the curriculum and all the different grade levels, for all the different populations and students that need to be served. We do have information on what happens when teachers try to teach basic skills and the most effective strategies for particular kinds of students. It is this precise knowledge base that we currently do not see implemented in any preservice programs on a mass basis. We see individual pockets of them, moving along at one institution or another, but there is no concerted effort on the part of the profession to use this knowledge.

MR. HONIG: It seems that there are two problems: one is research for practicable professional utilization. These are the categories that should go into teacher preparation. If you are missing some of these major areas, you've got a hole in your program. These we could agree on. Second, where are we to date on research gaps? The University of Illinois report *Becoming a Nation of Readers* is research-backed information about what teachers need to know if they're going to teach reading, but that addresses only one area and is something of a fluke. It has become sort of a national professional standard. If you take a look at it, we do not have them in the other areas, especially in elementary school.

DR. ROSENHOLTZ: We do not have a concerted effort by scholars, as the *Becoming a Nation of Readers* report does, that brings together pre-eminent people in a particular discipline like reading to pool their knowledge and see what is known about effective instruction. We *do* have a number of isolated research findings that we have not pulled together. For

example, we have known since 1970 that sentence diagramming does not help students improve their writing skills. It doesn't help students become better writers to learn how to diagram sentences. But sentence diagramming is in the curriculum of every junior high and upper elementary grade classroom. Why is this? Because people have been unable to pull together to compile their cumulative knowledge and there are no resources that are necessarily made available for that kind of collaborative effort to occur. But you are absolutely right. That needs to happen.

CINDY WARD (Mellon Project State Coordinator, Mississippi): My response will focus on something that Dr. Rosenholtz said toward the end of her presentation regarding the role of administrators in fostering collaboration and collaborative structures, especially in schools. These are going to be very critical areas. We want to see how we can make our schools more collaborative in nature so that teachers will feel more comfortable in doing the things she [Dr. Rosenholtz] described—talking to each other and working together. In Mississippi we are seeing in our required staff development programs that a lot of the problems, particularly in staff development, are brought about mainly because of a lack of collaboration at the local school district level, and because teachers do not view their school systems as places where they can communicate effectively with each other without feeling threatened in many cases. We need to try to get teachers to be more willing to do this. It can be very helpful to us [as educators].

As teachers become more accustomed to talking to each other about the practices of teaching, it is going to be important that administrators distinguish between talking about teaching practice and actually talking about teacher competency. Many teachers may feel that if they discuss things that are going on they are talking about a teacher, but in essence, they are dealing with a teaching practice. The administrator, again, has a critical role in demonstrating or modeling that collaboration is expected at the local school district level. This then needs to be announced so the faculty knows about it.

If teachers learn more on the job, as Dr. Rosenholtz has mentioned, then those teachers who have been out in the field and are in the classrooms now should have some input

into the preservice program. If it seems that they learn more on the job in their first few years of teaching, then maybe consideration should be given to having more input from these people into the existing teacher education programs and course offerings.

In conclusion, we need to see the school as a workplace conducive to professional development and staff development for teachers. So, in essence, I concur with everything you said in your presentation.

DAVID STOCKFORD (representing Margaret Arbuckle, Mellon Project Coordinator from Maine): Thank you. Cindy and I were both feeling that we should adhere to the advice Superintendent Clausen gave to his sons concerning listening and talking behaviors, particularly given the erudite presentations that you heard today. Then looking at the geographic distribution, we decided that it must be that people wanted to hear us talk, somebody from the Northeast and somebody from the South. So I'll try to twang as much as I can. And she graciously agreed to set the stage.

Given the advice of not talking much, I could summarize my comments by saying "amen" and suggest that what you have stated has been in fact our experience with the Maine School Improvement and Staff Development Network that we implemented in our state. It supports several of the points you made, particularly the need for a means to address changing needs at various stages. We need to give more attention to recognizing the developments that occur when teachers are practicing in the classroom.

I think we are developing some knowledge about the effectiveness of schools and that we need to do more to share that, particularly with the people in the classroom. This has been the basis for several programs that will be initiated as a result of reform activities enacted by our state legislature. After hearing your comments this afternoon, we look forward to being more successful.

One of the most important statements you made again applies to our experience with the Maine School Improvement and Staff Development

Network, and that is that change occurs most successfully within the context of a defined system. In particular, that includes *working with others—using those interpersonal skills* that are not included in preservice, nor in our own staff development in many instances. But they are most important in the context of the workplace and the school.

Again I am most pleased with the emphasis you give this stage. It was intriguing this morning to hear the comments of Dr. Boyer and his reference to *transition*, particularly in light of his new work on college. This term is also receiving significant attention, at federal and state levels, in relation to the handicapped, an area that happens to be my interest within our state department of education.

Again I think we fail to recognize the critical need for support in those first three or five years of experience in the classroom. We need to address the national concerns that there are increasing referrals of young people to special education services and that these referrals in many instances result from our projecting failure on the learner.

And one of the more positive aspects of our effort is that we are actually seeing (and it is a simple technique), that in the school districts where we had some success with the growth of staff development networks, the mere experience of teachers talking specifically about students has reduced the numbers of referrals to special education. For us, there is an awful lot of insight there and support for what was said this afternoon. Thank you.

ALICE McDONALD (Superintendent of Public Instruction, Kentucky): Thank you very much. I tell my teachers across the state that the three greatest lies ever told are: "The check is in the mail," "I'll still respect you in the morning," and "I am here from the Department of Education to help you." I do not know what to do about the first two, but I am trying on the third. Perhaps after this excellent presentation and responses and the rest of the week's programs, we will be from the Department of Education and able to help. We thank you all.

CAN THE STATE BE A POSITIVE FORCE IN BUILDING COLLABORATIVE AND INTEGRATIVE SYSTEMS IN TEACHER EDUCATION?

Frank Newman
President
Education Commission of the States

My job is to talk about the possibilities of state strategies. What is it that the state can do? How can we make something happen? I believe that this discussion will be much better if it is, indeed, a discussion. So would you be willing to make this an exchange of ideas rather than a lecture?

There is a good deal of debate these days about what the state role should be, and I want in a moment to come back to some of the Education Commission of the States (ECS) initiatives which will put that to the test. And I should also say that, courtesy of the Mellon and Ford Foundations, I am with a group of people in the midst of a major examination of what the state's role can and should be in its relationship with its flagship university. So that whole question of how the state can function, what the state can reasonably hope to accomplish, is becoming a much larger issue.

One of the things that any examination, certainly the one that we have been through, reminds you is that we in the education community have shared a misconception of the state's role. There is a tendency to think of it as sort of a straight line stretched across. At one end is complete autonomy for a university; at the other end is too much control by the state.

What reasonable people debate is where along that line the ultimate answer should be balanced. Should it be toward more autonomy, less autonomy, more accountability (if you want to call this end accountability)? In other words, move it back and forth and find the right position. The more my colleagues and I on this project have examined that question, the more we have realized that it is a totally inadequate, inappropriate, and misleading way of thinking about state relationships.

The problem, the opportunity maybe, is to think of the state role as being quite different from the educational institution's role. The problem is to maximize both roles, but to find the right role for each, and avoid the wrong ones. Almost all of the historic changes in

American higher education, which we tend to look upon as being more or less divine revelations or changes from within, were, in fact, externally wrought changes. The Land Grant Act is an obvious example. We now look with pride upon land grant institutions and the land grant concept within higher education.

We think the Land Grant Act was a great American step that sprang indigenously from the soil. Somehow we know it had something to do with the Midwest; we are not quite sure where it had sprung up. Actually, it was an act of the Congress, and it was not proposed by a guy named Land Grant. A group of people put it together. It was passed first not in 1862, as we always say, but in 1858. It was vetoed by President James Buchanan, passed again in 1862, and signed by Lincoln. Now we accept it, but at the time it was seen as an end-run around established, dug-in, reactionary academic institutions.

And one can identify a whole series of these "outside" actions that were done either by the federal government, state governments (most commonly), churches (often), or broad public pressures (on occasion). These were the external forces that drove American education into new avenues, often by the same technique of an end-run. To some degree, it is important to recognize that we need a powerful state force.

The importance, it seems to me, is to see the concept of a powerful state, not competing for the same piece of control that the institutions of education are competing for, but competing for power in its own sphere, primarily the sphere of influencing and encouraging institutions. So that brings us back to a very difficult set of questions.

How does the state do that? What are the mechanisms the state brings to bear to achieve those purposes? It cannot always start completely new institutions, as attractive as that idea may be.

Anyway, part of our goal is to think through the forces the state can bring to bear to be

more powerful and more effective, but in its appropriate sphere. How can it bring about a reform movement, such as in teacher education, in a way that is sustained? It is rare that there is a single element that brings forward something like a reform movement. It is clear to all of us that the reform movement did not start with *A Nation at Risk*; it did not end with *A Nation at Risk*. It started long before that, with many things that you and others are doing, and it will continue for a long time.

Powers of the State

Well, what powers does the state have? In teacher education it has a tremendous number of powers. It owns most of the teachers' colleges. It certifies teachers in a very exclusive way. It provides student aid to people going to college who wish to become teachers. It legislates with regard to collective bargaining, which influences a great deal the nature of the occupation.

The state has some other powers as well. It can publicize things, point out things, bring attention to things, but it has some problems. One problem is that none of these powers is well coordinated. You probably represent as much as anyone the ways of coordinating that the state has. But remember, in most states the powers are split between higher education and elementary and secondary education, between commissioners of higher education and chief state school officers. That split runs all the way through there. However, in New York, for example, all the power, including most of the power of the governors, is combined under the single office of the commissioner of education. This structure grants enormous powers, sort of a halo effect.

Part of the problem is that as we made a lot of progress in these years in getting higher education and elementary and secondary education to work together, the national condition for them is to be separated and to move considerably apart. Another problem is the control by interest groups. There has been a lot of political science work on control of things like defense spending by groups that link themselves, that have common interests. Therefore, the Defense Department people, working with Defense committees in the House and Senate, become a force in themselves and gradually begin to control things. They get a very firm handle on things, so that the Congress and the

Administration have a very difficult time in trying to go against them.

The same thing has happened to us. That is, things like teacher certification slowly fall into the hands of professionals, who have self-interest in those issues. People like ourselves who have the overall good of the public at heart find it difficult to deal with those groups. And there are ways for us. So let us think about the kind of strategies that we can use.

One of the problems for us is whether we look at this as a time for incremental or radical strategies. Is our goal to change teacher education little by little, or is it time for us to seize the moment, in the midst of the current reform mood, and do something very radical because we will never get another chance? There will never be a time quite as favorable as this.

I suppose a lot depends on the particular situation in each state, on the particular strengths available. On the whole, I think the time is much more favorable for relatively radical transformations, and I want to propose a couple of strategies that might help us to achieve them. If we want relatively radical ones, we have to think about what our goals are. Do we want a completely new approach to teaching? I would argue there are some very good reasons to want that.

Do we want new courses? Are we just concerned that teachers do not seem to know certain things? Do we want a different kind of major for teaching? Do we want to attract new students? If we want to attract new students, do we need a new image for the whole process of teacher education as well as for teaching itself?

Let me divert you slightly to argue that there is room for thinking about an entirely new argument about teaching. Ernie [Ernest L. Boyer, President, Carnegie Foundation for the Advancement of Teaching] mentioned the forthcoming Carnegie Foundation report on the undergraduate experience, which I think will be an important addition to future knowledge, particularly as it applies to the high school-college transition. It is interesting that we put so much emphasis on transition, but we know so little about it.

New Challenges for Education

There is another report from the Foundation, coming out in about six weeks, on a pro-

ject that I have been chairing. It is called *Higher Education and the American Resurgence*. It talks about the importance of our thinking through where we are going, if the country is going to try to take the kind of leadership role in the future that it had in the past. Obviously one thing that is involved is a completely new economy. We are dealing with a world in which the economy has changed. It is no longer the kind of economy we had before the Japanese entered the automobile business, for example. The major change is not that we have more international competition, while that is certainly true. The major change is that the whole nature of industry has changed. We have spent most of our adult lives in a world in which American industry has prospered by a very hierarchical approach. By hierarchical I mean what was originally called scientific management.

More recently, it is a version of scientific management taught in the business schools, that is, a very rationalized system of management, including subdivision of jobs; an organized, analytical way of looking at things; assignment of tasks; and orders and procedures coming down from above. It was marked by heavy capital investment, large volume, and low cost. And we prospered. We were the best in the world. The one big problem is, it is no longer applicable.

First of all, it is no longer true that we have the advantage. It is not just Japan that can produce more cheaply than we can, but also that Korea, Malaysia, and Singapore can do it more cheaply than Japan.

So we have been forced to look at what we do and realize that what we do well in the current world is something entirely different. We innovate; we think of new ideas; we do different things. That nice organization, that business-school thinking is antithetical to innovation. And all of a sudden, the school system, the MBA system that the universities have, and the organizational structure that businesses have do not work in today's world.

Now I mention this because when you change what the country is trying to accomplish, it changes what you as educators are trying to accomplish. Not too many educators have caught on to this. The obvious people who are going to catch up are the people running the business schools. If we are trying to create a different world, and if an entrepreneurial spirit, rather than an intense,

analytical effort, is what matters, is the business school graduate ready for that world? Answer: No.

What about ordinary workers, ordinary people? In a community where we expect people to be more involved, outspoken, and independent thinkers, is our education system appropriate? Answer: No. What do we want? We want involvement; we want critical thinking; we want risk-taking; we want the capacity to think in more imaginative terms.

What helps and hurts creativity?

What helps creativity? Well, start with the question of what hurts creativity. What hurts creativity? Sitting still, having somebody tell you the answers, saying there is only one right answer. What do we do in our schools? All the studies show that over ninety percent of the time we urge students to do exactly what I just described. The only thing that has saved us and kept the United States in the industrial league is one simple fact: we are lousy at the encouragement of creativity, but we are slightly better than the rest of the world. According to the findings of our group, we appear to be the best in the world at fostering the freedom and flexibility to encourage creativity.

We offer more opportunity for students to speak out, participate, and try new ideas. Now we don't offer a lot. If you think we have a lot, go try a method I use on college students, who have much more education than elementary and secondary school students. A group of researchers, including me, went out and asked college students, "Suppose you're taking your final exam, an essay exam. You've answered the first four questions and there's a fifth. You look at the fifth and say, 'The trouble with this question is that it is really structured wrong, in light of the course. It asks this, while it really should ask this.' Would you write the answer to the question as it is written and then say, 'However, I think it would be better if this question were structured this way, and here's how I would answer it.' Would you be willing to do that?" We have yet to meet the first student who says yes. The almost universal answer is, "Are you kidding?" Our next question was, "Why not?" They answer, "You've got to be out of your head. I'm taking the exam. I'm trying to pass. If I do that, I am dead, dead, dead."

Now whether the students are right or not, we have convinced them that the last thing

they should do is think. We convince the student to find out what the professor wants as an answer and give it back. In elementary and secondary education, it is more so. And that is one-half of the problem. The other half of the problem is that the world has changed politically for the United States. The problems of social involvement and political process are now much more complicated.

Let me give you only one example out of many. One example is pollution. My family and I moved to California when we were young, and we first lived in Newport Beach near Los Angeles. Everybody said you can't live there because of the pollution. Everybody thought pollution meant air pollution and water pollution. Los Angeles had smog and Lake Erie had dead fish—two things we could do something about. Now the air around LA is largely clean; the fish are back in Lake Erie.

But, as we became gradually more educated about pollution, we found that it wasn't as simple as that. We found that cleaning up pollution is like peeling an onion. Toxic waste and acid rain are extremely complicated issues. They are not localized to a particular area the way air pollution affects LA. They affect the whole world. They are not going to be solved easily. We have yet to find any solution for toxic waste. Why? We have technical solutions for acid rain, but no one can agree politically how to apply them. We do not have the social ability to get together and deal with the bigger problems.

Citizenship Education

Part of this is our fault. Why? Because we do not encourage people to become citizens. Increasingly our educational system is abstracted from its first and most fundamental principle. The purpose of education in this country is first to prepare people for life as citizens and secondarily to prepare them for careers. We've forgotten it.

Do teachers and faculty members believe they have a responsibility to prepare better citizens? We have surveyed that. "No" is the answer. Why? There are a few reasons. One, they are afraid that if they get into values, they will be seen as right-wing ideologues. Second, they are not sure what the values are. Third, there is a lot of cynicism about values left over from the anti-Vietnam War period.

So there are a lot of questions at stake. But

look at the values inherent in teaching. If you tell a student he or she cannot cheat on an examination, you are teaching values. If you tell them that there is merit, that is to say, one person is going to get an 'A' and the next person is going to get a 'B,' you are teaching values. Basically you are teaching values when you say, "If you do well, that's better than if you do poorly." If you teach the fact that life will be improved with greater knowledge, you are teaching a value. So what we have is a situation where people are refraining from teaching values because of their fear of being perceived as right-wing.

Now I mention all of these things because there is an antidote to both sides, both the entrepreneurial, risk-taking concern on one side, and the lack of sense of involvement and citizenship on the other side. And the one common answer that all groups gave when we queried them about addressing the people working on either side, was: *much more involvement on the students' part.*

How do you get much more involvement on the students' part? You have to have teachers who engage the student in activity. This brings me back to my first question, "Do you really want a completely new approach to teaching?" My answer is "yes." I want teachers who are actively interested in encouraging students to become fully involved. To get them, we're going to have to step back and ask, "What should we do differently, and whom do we attract, and how do we prepare them?"

Now it is time that we had much more discussion here. I have stated a couple of theses, and I want to go on to different strategies the state can use, but at this point I think it essential that someone either agree or disagree publicly.

LYNN SIMONS (Superintendent of Public Instruction, Wyoming): Do you think the whole question of changing teacher education boils down to more student involvement?

DR. NEWMAN: No, I don't think that is the whole of the issue, but I do think it is the central point. By the time the student graduates from college, we have spent seventeen years encouraging that student to acquire knowledge and practically no time encouraging the sense of creativity. There has been a big debate about creativity. Can a student learn to be creative unless the student has a

certain knowledge base? Which comes first, the knowledge base or the creativity? While it has been an interesting argument for scholars of creativity, I think it is an absurd argument. Like most scholars, whether it is absurd or not, they can debate it for some time. My own sense is that the two go together.

There are other issues, including knowledge generation and acquisition. But as far as I can see, the biggest single gain we could make would be to encourage a different kind of involvement in the classroom at all levels. Look at the studies of student involvement. It is high up to about the fourth grade, then it falls off. One of the saddest things and one of the places where we do most poorly is graduate education. One would expect graduate students to be self-generated scholars. That is what we say about them. We admit them on the grounds that they are capable of independent, original, creative research.

But if you talk to graduate students, they find it very difficult to do a piece of creative, original work. Instead, their committees are much more likely to say to them, "This is the way it will be." We had a grand case of this. When I was president of the University of Rhode Island, the head of a department at a certain unnamed elite university was invited to dinner because he knows a great deal about undergraduate teaching. As the evening wore on, he became more and more eloquent on the whole question of creativity and getting students to be creative and independent thinkers. He was magnificent, creating an evening of real power and majesty on the beauties of educational attainment.

Were it not for the fact that one of my research assistants happened to be a graduate student in his department, I would have believed him. The research assistant had recently proposed a thesis topic that was centered in the department, but had a very slight interdisciplinary tone to it, and his committee had unanimously turned it down on the grounds that they just weren't interested in that kind of stuff. He was, but they were not. He had gone to the chairman, and the chairman said to him, "Well, let me make it plain, we just don't do that kind of study at this institution."

After dinner, I asked to see the department head the next day. We had a brief conversation. I said, "I happen to know one of your graduate students who is being denied a chance to do creative work by your depart-

ment. I want you either to write me a letter retracting everything you said last night, or let this student do a slightly interdisciplinary research thesis." He said, "That's unfair." I said, "That's exactly how I felt. I thought it was unfair. So you have a choice, either retract it..." Finally, reluctantly, they called in the student and allowed him to go ahead. He is about to get his doctorate.

DR. WAYNE SANSTEAD (Superintendent of Public Instruction, North Dakota): If we buy the concept from the MBA world of the gold-collar worker, the person who has superior flexibility and knowledge, that worker is also going to be a different kind of worker. How do you deal with that kind of worker from the perspective of a management or administrative role?

DR. NEWMAN: The fact is that there is going to be more flexibility in work. There is a lot of argument in our society that the main purpose of education is to create workers molded in the way that the work force wants, that you are really the tools of General Motors, U.S. Steel, and so on. I don't happen to believe that. I think that is sort of absurd. It will not hurt American industry to have a considerable degree of flexibility.

I don't know if you have seen the Ford-U.A.W. plan, which will create the opportunities for workers to go back to school on the grounds that they will be more self-motivated and will move themselves into new areas. Most American workers undertake an average of two and one-half completely different kinds of work during their careers. And that is what gives the work force the flexibility, that keeps it from being dug-in and immobile. I think it's a very good thing.

SAUL COOPERMAN (Commissioner of Education, New Jersey): Years ago, I remember reading Saul Alinsky. He said that the institutions don't respond, and if our goals are important to us, we must get people's attention in a very unorthodox way. You were talking about a radical approach. Every action has a reaction. What conditions and what objective would promote radical change in your mind?

DR. NEWMAN: Well, I had a great lesson in this once. I talked at length on this subject with Elliott Richardson, who had a very inter-

esting view: "Do we want substantial change to occur? Why do we want substantial change? Because the fundamental things we are doing are off-target. If the fundamental things are very close, we are really pretty much on target. If things are going along well, then what we want is incremental change and we have a different strategy." But his argument was that sometimes things are fundamentally off-target.

I would argue that is so in teacher education. Why do I say fundamentally? First of all, teacher education, we all agree, is not at the top of the pecking order within the academic institutions. It ought to be, but it is not. That is disturbing. It ought to attract the best students, but it does not. No one would argue that it is attracting the best students, by any set of terms.

Second, I would argue that, in light of what I just said, this is a time when education ought to be re-thinking entirely what kind of student it wants to put into the work force, into American life, and into American citizenship. And it is not doing that. Schools right now are not in the process of re-thinking.

Third, under any circumstances we want people who are much more activist, creative, self-motivated, and empowered; people who feel good about themselves and that the world is their oyster. That is not happening.

That says to me that there is a considerable need for a shakeup, and therefore I would argue that a shakeup strategy is in order. Richardson's theory was this: "You get out there and you say all these terrible things. Then people come to me and say 'Have you heard what they're saying?' Then I say, 'You're kidding. Are they really saying things like that? Now we can't go that far.' Then everybody says, 'That's right. We can't go that far. How far do you think we should go?' I say, 'We certainly don't want to go all that way. Well, let us see, maybe here.' And everybody says, 'Yes, that's much better. Thank you, Mr. Secretary.'"

STEPHEN KAAGAN (Commissioner of Education, Vermont): Let me make a couple of comments, and then say what unsettles me. First of all, I think that our definition of intellectual competence is changing. I think it is absolutely fascinating that in the last five years we have struggled with the term "literacy." Concepts of literacy keep changing. We come up with terms like "computer literacy," and

then someone says no, it is "technological literacy," "visual literacy." We've been struggling with it. Second, I agree with you, too, that what we value economically and what we need in leaders is changing under our feet rather dramatically.

Third, I think that citizenship skills as a prime undergirding of the educational system probably do not exist any more. That which is intrapersonal is much more important in America than that which is interpersonal, much more so than before.

This means that there need to be some radical changes in future education, because the educational system is changing under those situations that we describe. The problem is there are a variety of market forces in the private sector that will cause change to happen because people want change. Certain groups of parents will buy certain things for their children, whether the public interest provides it or not. Yet, at the same time, there are large numbers of people, most of the people in this country, who will not be served by the marketplace. So what unsettles me is the question: who will represent the public interest in changing teacher education, and how?

DR. NEWMAN: Well, I think that is a very simple question. I would answer that the people in this room, including me, all have a major responsibility in acting on the public's behalf. Now that may seem arrogant, but I don't think so.

DR. KAAGAN: It is not arrogant. It just seems a little inadequate, if you'll accept the humility of that, given the magnitude of the problems.

DR. NEWMAN: Yes, I do accept the humility of that. It is a big task, and we do bear a substantial burden. But we have a lot of allies. Our strategies must muster large numbers of allies because if you attempt to do this alone, as many of you have found, your hide can be stretched very nicely up on that wall.

We do, however, have some advantages. First, we have a very different system of operating from the Europeans and the Japanese, who tend to have national [education] systems. Second, their domains are entirely within the government, and when the government decides something, it is passed by the parliamentary majority and becomes law. We do not have

that system. In that sense, your job becomes endlessly more complicated. On the other hand, it becomes endlessly more sensible, because we are much more likely to get good laws.

We had a debate about this in Denver some time ago. We had a Japanese delegation that was led by the head of the task force that the prime minister created on how to reform the Japanese schools. You know what they are worried about? Their worry is that they have been very good at the ordinary rote learning, better than we are, but nowhere near as good at the whole idea of establishing openness, competence, competitiveness, flexibility, and creativity.

They see that they have now reached the end of the copy-American-technology road, and they have got to be more creative. They don't think that their school system allows them to be more creative. So we had a long discussion. They are trying to do the same thing we are trying to do. They are in the same boat. So, how do we do it? We cannot do what they are going to do. Pass a law? No, our national government is not going to pass a law.

Here are some strategies along with some allies. The first and most obvious one is the same thing the Japanese use—mandates. We have used them quite frequently on a state basis. But what are the options about mandates when it comes to teacher education?

One of the difficulties is you cannot mandate the kind of things you want to deal with. One trouble we have seen is that students take too many education courses. But we cannot mandate that students take fewer education courses. As a matter of fact, the new Southern Regional Education Board (SREB) study shows that students are already taking more education courses than the state requires. So, even if you were to reduce the state requirements, it is not likely that you could have much influence on what appears to many people to be a critical subject.

The trouble also is that, when dealing with a sophisticated group such as schools of education, mandates often appear like regulations in the United States Navy. It's a game. Give us a set of regulations, and within six months we will have fashioned the perfectly viable answer that defeats your purpose in issuing those regulations. My own sense is that mandates will do almost nothing for us in the field of teacher education. We cannot mandate that higher-

quality students will come in, although we can mandate entrance requirements, and that might help some. But the fundamental problem of getting a more exciting person into teacher education is not likely to be solved because we passed a law.

Remember our goal is not simply to get higher-test-score students in as teachers, but to get people who in the classroom feel empowered, self-confident—excited, involved teachers. That is a different kind of person. And we have no law at the moment that can effectively say, "You cannot enter the teacher education program unless you are the kind of person who is self-confident and powered, can transmit that enthusiasm to students, and is likely to be the kind of person who will bring students into full participation," and so on. We just don't know how to do that. So I place little hope at the moment in mandates for teacher reform.

The Power of Exposé

Second, we have the capacity for exposé, which I think is a very important capacity of state government. There is some element of that in what you are doing with the Mellon projects; what you are doing is creating—it is not quite exposé—workable examples and saying, "Look, here's how things can go." When you get people together and get them talking, you are using some elements of exposé.

But you can go much further. Have any of you read the SREB report on teacher education? All of you should. It is really an interesting report and a good example of what I would call a responsible exposé. They compared 3,000 transcripts of students studying in the field of education and 3,000 transcripts of liberal-arts students. Then they did little vignettes of people. For example, they said, "Here's Jim. In high school Jim took beginning concepts of preliminary math and failed. Then took the same course again, and got a 'D.' He went on to community college, took 'Introduction to Beginning Math,' got a 'D,' and that's all the math he ever took. Now he is certified as a teacher." That is a typical example. The study includes a lot of other facts and comparisons of teacher education students to other students. It is far from a complete study, but when you read it, you say, "We have to do something. We really have to do something."

There are some difficulties. One of them is the difficulty we mentioned before of a split between higher education and elementary and secondary education, because this issue concerns both of them, and the jurisdiction is divided. Another problem is the awkwardness of appearing to criticize your own institutions. Those of you from California know how awkward it was for Pat Callan [Director, California Postsecondary Education Commission] when he published some figures on community colleges in California. The community colleges just really turned on him and said, "This is totally unfair and unfortunate. How could the man responsible for thinking about things in California actually expose our weaknesses? That's not going to do any good." Of course, it did a tremendous amount of good.

There are some ways of dealing with this. For one thing, it is possible to use agencies as vehicles for exposé—intelligent, controlled, thoughtful exposé that helps you move forward, as in the old Richardson law. This is where we can get information together, from a set of states like the New England states, or the country, and put it forward. You then play the old Richardson game and say, "My, we can't go that far, of course, but we must certainly take this into account." So I have high hopes for the exposé strategy. Done intelligently, fairly, thoughtfully, I think it works. All the evidence is that Americans do best under an exposé strategy.

Let me suggest a strategy that Tom Kean, the Governor of New Jersey and ECS chairman, has used. He calls it "the challenge strategy." He has stated two major issues. One is the whole question of the quality and effectiveness of teaching. What he is saying is that we have been operating on teachers, rather than with teachers. He is arguing that ECS and he as chairman ought to challenge teachers to come forward with their ideas. He wants to go around the country, meet with teachers, talk with teachers, draw them into conversations, and publicly challenge them to participate in the process.

We have tested that in a small way with groups of teachers, and it is going to produce a lot of excitement and interest. Again, teachers themselves are part of the exposé. They themselves begin to bring forward things they think are important.

The Governor is doing the same thing with the issue of quality in undergraduate educa-

tion. If it is true, as the SREB report and others point out, that the quality of teacher education at the undergraduate level is low, what gives us confidence about the rest of undergraduate education? That is the question that has been coming up in state after state.

What he is saying to the institutions of undergraduate education is, "We want a significant improvement in quality. This state, to become the kind of powerful, advancing state that we want it to be, must have first rate undergraduate education. But you, not the state, want to be the architects of that. The state thereby challenges you. We give you your base budget. We have a small fund that we will build on top of the base budget, and you come forward with proposals. We want to know two things. How do you propose to improve the quality of undergraduate education, and how do you propose to know that you have improved it? And the best proposals will be funded, above and beyond your base budget."

That is a challenge. It strikes me as a very different and interesting way of operating. Does anybody want to argue with any of these strategies or differ with them?

ARVIN C. BLOME (Associate Commissioner of Education, Colorado): What about changing the content of the education courses to develop more problem solving and creative thinking as it relates to education and teaching?

DR. NEWMAN: I think that would be terribly valuable. Let us assume that we could pass a mandate that says that we will change the content of education courses. Who will do that, the schools of education? The same people who are teaching now, right? And after you have changed the outside of a course and gone into the classroom, what would they be teaching? The same thing.

Somewhere we must make a real change. We could get a lot of people in schools of education to retire. We would have to make sure somebody would pick better people—more exciting, more interesting people to replace them. Otherwise what you would get is more of the same. So you get into these very subtle things that require a much deeper change from within. That is really my point.

COMMENT: The transcripts in the SREB report were from 1982 or 1983. Some of us who

were in the survey were given a bum rap. Those data were taken prior to a change we made in core requirements for teacher trainees. It was also prior to a change in format. That report was totally one-sided on the issue. That is one of the risks of the exposé approach—it only tells a small part of the story, and may be recording a period of history that no longer exists.

DR. NEWMAN: Yes, I think that is one of the risks. Whenever you use the exposé approach, there is the disadvantage that the data themselves can be attacked. As a consequence I am a believer in very careful and extensive work with the data.

JUDITH LANIER (Dean, College of Education, Michigan State University): I question the supposition that education courses are the villain. A lot of the problem is that secondary teachers have the fewest number of education courses. Less than one-sixth of their undergraduate course work is in education, on the average across the United States. This is not even close to what you would call a major. On top of that you have student teaching, but I am excluding that. Now that hardly seems enough to be the villainous thing that you attack. Would you comment on that?

DR. NEWMAN: I would rather not address that question at the moment. I don't think my question is what is really right or wrong with teacher education. My concern is identifying strategies to address that. So I am trying to focus on the state strategy question. While I am in favor of an exposé strategy—a tough argument strategy, I am not much for villains. We spend too much time in our country trying to figure out *who* is wrong, rather than what is wrong.

DAVID C. SMITH (Dean, College of Education, University of Florida): Isn't there an inconsistency? How do you on the one hand, have an exposé strategy, which by its very name has an element of sensationalism involved, and, on the other hand, avoid the villain? How do you have it both ways?

DR. NEWMAN: Well, there is a dangerous element to reform in this country. At a recent meeting that Ted [Hollander, Chancellor of Higher Education, New Jersey] put together, a

group of New Jersey university presidents, a few people from the outside, and a reporter from the *Star Ledger* were present. After an intense, very progressive, and thoughtful day of discussing how to put this challenge business together, this reporter said, "This is a bunch of talk. I want a number. Give me one number that will show whether undergraduate quality is improving or getting worse." I couldn't believe it. I said, "What are you going to do?" He said, "Keep track." And I said, "You'll write a headline that says 'Jersey schools again fail numerical test on quality,' or something like that. It's *you* who cause such a mess in American education. You want to reduce the most complex kind of business we can imagine to one lousy number so that you can have the sensational headline." The reporter got very offended and left. I felt that I had done my part for New Jersey that day.

Of course, this attitude makes us cynical, and we must absolutely resist it. But we don't need villains as much as we need problems. By that I mean, if we're getting people with inadequate imagination, self-confidence, and excitement into the teaching process, that is the problem. We don't need to say, "The dean of the school of education is wrong." If the process of teaching is so bureaucratic that bright, able people will not enter it, then we need to de-bureaucratize the schools. That is the problem. Let's stay with the problem and forget the villains. Let the problems carry the weight. That way we don't have to personalize things.

BERNARD SCHWARTZ: I think you have given a rather rational and cogent picture of what has happened to us during the recent changes. We have a stagecoach, if you will, in the old industrial society. To solve the problems of change, you are saying, "Let's take this stagecoach and look at its parts—like teacher education, the teacher, the trainer of teachers, the university level, and the college level." Let's change it a little. You are forgetting the major thesis that struck me as being so important—that we need an external force, a radical change from the outside. You told us that this has been the only way we have been able to make changes in education, yet you want to start from the inside and change a part in the stagecoach, by reducing teacher education. It seems inconsistent.

DR. NEWMAN: I hate to admit it, but I think you are right. I want to give you a strategy that is at least a little better than that. This goes way beyond the question of teaching. I have gradually become convinced that we must have much less bureaucracy in the schools. There are too many layers of management. I think business has found that out. I think we are going to be forced to have much less in the way of rules and procedures. We will have to encourage really entrepreneurial principles.

The most important lesson thatSizer, Goodlad, and Boyer discovered was that there are aggressive, perfectly adequate schools in terrible situations where there happens to be a principal who ignores all the bureaucracy and runs the place with an inspired, firm, tough hand. What prevents this from happening more often? So, in the broader sense, I'm with you completely. I think we've got to do very different structural things. Teacher education is just one part of the situation.

A Proposal for a New Model of Teacher Education

I have at least one proposal. I mention this more as an example, although I think the proposal is perfectly feasible. Do some things that are different; shake things up in terms of who enters teacher education, what they do while in training, what they do when they get out, and their willingness to shake up the school when they get there. What could we do that would give us a different kind of person entering the situation?

I have a proposal. What is the model we can use? We are interested in the question: "How do we encourage young men and women in America to think of their civic responsibilities, not just their personal responsibilities?" For the Carnegie report, we thought about that and concluded that this country historically had one great leverage point that it no longer uses. That is student aid.

We used to give student aid to people in return for their serving the country. The GI bill was the most obvious example. You serve the country, the country serves you. That was a terrific idea. We all agree it was the best student aid program we ever invented, particularly those of us who got the GI Bill when we got out of the service. So, in the best of American traditions, we are now in the process of eliminating it. Is there a way one could use student aid in the case of teachers?

Why don't we use the equivalent of the Reserve Officer Training Corps (ROTC) program, which also works well. How would it work if we had a ROTC for teaching? First, ROTC works well because it selects students. One cannot simply apply, as in loan forgiveness, and say, "I'm a teacher education student and I'm interested in loan forgiveness." One must be selected by an external selection panel to get into ROTC. When I was at the Air Force Academy the other day, I discovered that ROTC is more selective than the Air Force Academy.

Second, unlike loan forgiveness, ROTC requires that the commitment begin immediately. Loan forgiveness has the disadvantage that undergraduate students live in the present and their loans must be paid back in the future. Students say to themselves, "Well, if I get the loan, I'll get through this year. Somewhere downstream I'll take care of that problem." In ROTC, when you sign up, you *do something* immediately.

Our proposal is that "Education ROTC" students take all of their education course work one Saturday a month. One weekend a month is devoted to education training, preparing for summer camp. That is, the students put in that time, and you have no concern about how much time is spent on education courses, because it is all done above and beyond the regular curriculum. Students take regular undergraduate majors, just as everybody wishes they did.

Third, students have summer-camp responsibility. For example, a student in New Jersey would be told, "In Hoboken we have twenty-five students who are reading and handling math below grade level. You're assigned those twenty-five students for two months during the summer. You have been training all year long, and a faculty member will coach you during that period. You have a small stipend. We expect that at the end of the summer, those students will be above grade-point average, and you are competing with your colleagues."

Further, we expect ROTC students to make an impact on the military because they are citizen-soldiers. They are not committed to the life of the military. They are not afraid to speak out. We would expect the same with ROTC students in teaching. We would expect them to go into a school district and be there year for year in return for the fellowships they

received. They would not have a choice of assignments; they would have to go where they were assigned.

But we would expect them to be more outspoken than the ordinary teachers. We went to the Pentagon and asked the people who run the ROTC program what the people are like who come into ROTC. Are they essentially time-servers, just putting in their time? The Pentagon said no. It turns out that ROTC people take the most aggressive assignments. They are more interested in being paratroopers and other things like that. Why? Because they are short-timers. If you are going to be in the army for the rest of your life, you might not want to start out in the Green Berets or the paratroopers. But if you are only going to be there three years, the attitude is "What the heck, I might as well do something. First of all, it ought to be something about which I can say, 'Hey, you know what I did?' Second, I might as well do something that helps out."

The same applies to teaching in Hoboken. The trouble with taking a job in the Hoboken school district is that a teacher thinks, "I'm going to be here the rest of my life." For a teacher assigned there on a ROTC basis, it doesn't matter. The teacher can afford to teach in the inner-city schools for three years, because it is not a lifetime commitment.

We also asked, "Do the ROTC people have to be outspoken?" They said, "Much more outspoken than the regular officers." So I mention this corps plan as an example of the kind of strategy that can shake the place up, if we put our minds to it.

Not one strategy can do it. We need a whole bunch of strategies, and they all ought to be strategies that can shake us up. Now let me give you a chance to argue with this theory for a moment.

BARBARA NEWELL (Chancellor, State University System of Florida): I am intrigued by your ROTC analogy. It makes me also think of the Berkeley proposal, with the six years and then leaving to change fields. What would be the impact of bringing in a series of young short-termers with low pay, when to keep master teachers in the profession, we really need to do something about the pay structure?

DR. NEWMAN: That is a very important question. A number of people who have tried

the proposal out have said the difficulty is the whole idea of bringing in short-termers. Let us say we had 100 ROTC students who came into our school district, a big school district. Clearly the schools would try to recruit the best of them, the ones with whom they were most pleased.

Incidentally, I wouldn't propose that they would be particularly well paid. Any ROTC student who went into regular teaching would start at the ordinary teacher's salary. It would be low pay during the summer, when working in the summer occupation. Once in a school district, the teacher would get regular pay.

The question, then, of whether there is a disadvantage in having short-termers is a very interesting one. My own sense is that a flow of bright, able people with three- or four-year commitments would be helpful rather than harmful. If they could develop mentor relationships with senior teachers, it would do a lot for both and provide an opportunity for schools to recruit from that group. The beginning teacher might say, "Yes, I'm willing to stay, but I don't want to stay in this school," or "I'm willing to stay, but I don't want to be a third-grade teacher." But it seems to me that this kind of relationship would be more positive than current relationships.

DR. KAAGAN: One of the things that is overlooked as a strategy is something you yourself said. I think we have to do a better job of making some of the connections intellectually between the changes in the world concerning the economy and literacy, and what these might mean for teacher education. If we cannot articulate the connection between those changes and the impact on teacher education, we are certainly not going to do a very good job of convincing anybody else to change. Some problem-definition, articulation, and connection-making need to be done as a strategy unto itself.

Second, we did not talk about allies. One of the most interesting conundrums is that we ourselves are not our own allies. There is probably not a person in this room who would feel any particular incentive at this point to go back into the classroom. Now there may be one or two. I think that in order to become our own allies, we have to understand what the forces are that would make us want to re-enter the classroom and act as you suggest the teacher would act under proper conditions. So we first

have to become our own allies, and that may be the most important strategy of all.

DR. NEWMAN: I think your point about all of us getting back into the classroom is important. When I was a university president, I taught every year, and I did it for a real reason. I wanted to keep experimenting with all these ideas. I wanted to understand what was going on in the cycle of teaching. There is a reason why the faculty begin to get grumpy as they are trying to read all those papers in the early part of May. Administrators forget that. Besides, it was a terrific value when I went to faculty senate debates where somebody would say, "But you don't understand this." I would say, "Well, yes I do."

HERBERT J. GROVER (Superintendent of Public Instruction, Wisconsin): After *Nation at Risk* and all that analysis, no one gets up front-and-center to address the quality of undergraduate education at four-year institutions in the nation. No one really attacks higher education. Secretary Bell says, "We [elementary/secondary education] have a cold; we have the sniffles, and maybe they have pneumonia." Then you get into the struggle of yesterday's "excellence" versus today's "access." There is the whole question of whether you put some standards into the base, into the liberal-arts programs in the four-year institutions of higher education in this country, which are totally uncontrollable and totally regressive in term of their view of the world. I think they are certainly more in the eighteenth than the twenty-first century.

We have skirted, danced, and finessed; we don't hit directly. It has something to do with standards of admission and expectation. We have heard that only fifty institutions are really selective in terms of young people. We send all the wrong messages back to the elementary and secondary education institutions, as we talk about this relationship and this seamless web and so on. This is more critical than teacher education courses and their role in preparing the teachers.

DR. NEWMAN: Could I take your comment as a criticism of the quality of undergraduate

education? This reminds me of a marvelous luncheon that we held in Rhode Island. Rhode Island is somewhat different than most of your states, which are big and complex. Rhode Island has only thirty-nine school districts. So, after I became president, I went to the superintendents' luncheon. Following my talk they said, "How come we never see the officers of the university?" I said, "What do you mean?" They said, "Well, we'd like to talk about education. We have many things in common." I said, "OK, how about if I invited you all to lunch?"

So they all came to lunch. We all agreed there would be no agenda; we would just talk to each other. Anybody could raise any question he or she wanted to in a non-pejorative, constructive atmosphere. We were all in it together. Right?

As the host, I began the discussion by asking, "Why do you persist in sending to college graduates from high school who cannot read, write, or think?" As you might imagine, a lively discussion ensued. About an hour into the discussion an old, gray-haired superintendent said, "I have another one of those non-pejorative, constructive questions. Why do you persist in sending us graduates who cannot teach children to read, write, or think?"

But basically there is a little problem there. I agree. This is going to be a different year, the year of undergraduate education, and reform proposals will address the ills of undergraduate education.

One of the goals of the Education Commission of the States is to avoid using the mandate mode as a strategy. One of the reasons that Governor Kean has chosen the challenge mode is to try to turn this situation around. I agree with you. I think institutions of higher education suffer from a disadvantage in that they have not wanted a serious examination of what they do. Governor Kean is saying, "You come forward before someone else does." Our report and several others that are coming out soon will suggest that the teacher education issue is imbedded in a much deeper and broader issue than the quality of undergraduate education.

At any rate, I appreciate the chance to talk with you.

TEACHER EDUCATION: A NEW VISION FOR THE NEXT CENTURY

Albert Shanker
President
American Federation of Teachers

Thank you. I do not know if I am going to go into the next century, but I do want to propose a new picture, and I think it will fit neatly into what most of the previous speakers have said. It is important to place all these discussions on teacher education—what kind of teachers we want, and what kind of students we want—in a context. There are times when one just sits around and talks about these things because it is our job to talk and think about them and make them better, but there is a certain urgency in this—our interests are not purely professional or academic at this point. The urgency is pretty clear. Many of us would like to go back to just before the reform reports came out. There are quite a few teachers and others in education who want this to go away, who are thinking of the good old days when they left us alone. That is a lot of nonsense.

The most recent depressing period in education, aside from the destruction of standards in the 1960s (while many professional people stood by and let it happen or even cheered it on), was the late 1970s and early 1980s when our political power was declining in terms of a substantial shift in the percentage of people who had kids in the public schools—a very rapid decline—and the shift in public attitudes toward education. As we watched the Gallup polls, they indicated what percentage of the public would be willing to support tuition tax credits. While all that was going on, and at a time when the economy was stagnant, the nation had a series of other very important agendas: re-industrialization, the rebuilding of infrastructure, and the rebuilding of our military capabilities.

Taking all those things together, it was a period when anybody in education should have been feeling that the end perhaps was near. Now we have a chance. I think it is just one chance. All of the education reform reports essentially represented a new awareness by the business and political communities. Just

as a few years before they realized that we had to rebuild our factories, bridges, and roads, or our military, now they came upon that further aspect that had been neglected—the human infrastructure, focusing on education. That support and interest on the part of the business and political communities make up in many ways for the fact that we no longer have the same percentage of adults with children in public schools.

Bad signs, however, are still all there. A tremendous amount of dissatisfaction resulting from the reports and the various reform movements have created a temporary feeling that things are going to get better. But if things do not change and get better, we cannot go back to things as they were before.

We now have a society with people who are quite well educated. They are not the people I grew up with in a working-class neighborhood in New York City, who automatically accepted teachers and the authority of government and the authority of schools. People are going to look for other options and choices, and they are going to take them.

We in public education are very much like the auto and steel industries were maybe ten, twelve, fourteen years ago. The Japanese did not hide what they were about to do. They were coming over, they were getting official visits, unofficial visits, and the United Auto Worker and steel-worker leaders were taking them through the plants. Then they kept showing us what they were about to do over there. At one point our management-labor people got together and said, "Hey, we better do something about them, they are coming after us, and they are doing a great job!"

Then they figured out all the things that would have to be done to American industry in order to make it competitive (which might mean there would be no dividends for a number of years, all the money would have to be re-invested, and when finished, the industry might employ three hundred thousand people

instead of a million-and-a-half). Each side said, "How do we sell this to our constituents?" The answer was, they could not. Then they hoped it would go away, or that people would not buy these small cars with funny names. Eventually, they had faith that they could go to the Congress, labor and management together, and have some sort of import restrictions. At any rate, here we are, and the American auto and steel industries are facing their one last chance. That is, they are now putting all their money into one retooling that is supposed to produce great automobiles. If it works, we will have an automobile industry in this country. If it does not, we will have no automobile industry.

I think we in public education have a few years lead time. But if we look at all the signs of dissatisfaction and unhappiness among educated, middle-class parents, we must make some big changes—not little ones—just as the auto industry did. So that is the context.

My normal job as the leader of a union is to do the traditional type of collective bargaining. I did not just decide to do this one morning because I got bored with what I was doing or because I decided to take chances with my membership and talk about things that might not be easy to swallow. I thought that in order to fulfill my function as a person who is elected to represent their interests, I had better give them some inkling of what was coming in the future unless major changes were made. That is what I have been trying to do.

Using that as a background, let me say that a reform movement does do certain things quite well—it is very good to say that we are not going to waste time with "Mickey Mouse" courses, that there is a curriculum, and that the public is paying for something and is going to get it. But at the same time that it shakes things up, reform in the long run is also rather destructive. It is rather interesting that at the very time that Peters and Waterman are making millions of dollars by essentially saying that you cannot manage things bureaucratically by rules and regulations from a central point, education is being reformed in the very way they warn against. So we are burdening the reform movement with a good deal of over-regulation.

A New Management Model

Let me give an illustration. One of the stories in the *Excellence* books by Peters and Wa-

terman is about a plant that is about to go out of business. I think it was a Ford small-truck factory in either Tennessee or Kentucky. The plant was about to close down. A new management "type" went around the plant and did the unusual thing of talking to all the workers. One example will suffice: he went up to a fellow working in a pit whose job was to tighten nuts and bolts as the assembly line passed over him. The trucks would come, and he would grab his tool, take hold of the nut and bolt, pull the trigger, and tighten it.

The manager asked him, "Do you ever miss?" The worker admitted that every once in a while he did not tighten the nut and bolt. "How often does it happen?" "Every five or six minutes." "Why?" "Well, it is very hard to stand here and hold the tool up. Anybody standing here would get a crick in his neck. Before you know it, the truck is gone. I feel very bad about it. I know it is going to rattle, and I also know that if the guys who tighten the other bolts miss the same one, the whole back is going to fly off. Occasionally that will happen." "What can we do about it?" "I have two ideas. One, put a little button under my foot, and whenever I feel the crick, I just press the button, and stop the assembly line. As soon as my head goes up, I will tighten it. I won't miss any if you do that. The other thing is if you can arrange it so that I could tighten it by looking down rather than up. It is easier to look down rather than up."

That is what management did all through the plant. They essentially listened to the employees and restructured the plant. It is one of the best systems now. You will find several examples like that in *Excellence*. There are assembly lines with thousands of people where management, in a radical action, gave each of a thousand workers the right to stop the entire assembly line. Now *that* is gutsy. Just imagine what the bureaucratic mind would say: "The damn thing will always be stopped." You have a thousand people pressing these buttons. If they stop the whole line, there will be no productivity, right? The new system loses no productivity. In fact, just the sense of empowerment, just the fact that a worker knows he or she can stop it means he or she does not get a crick as often.

Grievances are fewer; employees are happier. Productivity is the same, but the number of rejected products goes down to practically zero. Think of all the years when management

dealt with these workers by rewarding the good guy with merit pay and punishing the bad guy. The next guy is going to have a crick, too; it is just that the good guy has cricks every seven minutes and the bad guy has them every three minutes. But everybody is going to have them. The new notion is to give a lot of power to the people right on the front line, to allow them to do some thinking and inspecting, and to give them incentives to report accurately to management. Management's job is essentially not to supervise people, but to get information and to re-do the system in accordance with the information that comes up from the people on the line. That is very counter to the style of reform in education right now.

Now there is something else that goes along with that. How do we get the teachers of tomorrow? How do we get the kinds of people that we are talking about—the people who are innovative and who do not just spoonfeed the kids, the people who are less bureaucratic, the people who are bright, and so forth?

To answer that question, I am going to put on a slightly different hat. For two-and-a-half years I sat on an AFL-CIO committee called the Committee on the Future of Work. It really was not a committee on the future of work; it was a committee on the future of the AFL-CIO. Why aren't workers joining the AFL-CIO? Why did we lose two million members over the last two-and-a-half years? Part of the reason is export jobs, part is labor laws that are not very good for labor, part is the new National Labor Relations Board. But, as we found in our two years of study, part of it is also that there is a new American worker. The whole notion of organizing people has been based on the idea that workers did not like their bosses or their jobs. Indeed, if I had asked my mother and father why they worked for a living, they would have shouted back at me, "Do you want to eat? Do you want a roof over your head?" There is only one reason they worked. It was dirty, hard work, and they would not have done it for one additional second if they had not been compelled to in order to obtain the basic necessities. Throughout most of our history, that is the deal that workers made: we will do the dirty work; we want to do as little of it as possible; we want as much of a share of the benefits as we can obtain, and that is it.

Today, when the pollsters put microphones in front of workers and ask them why they

work, that is not the first thing that comes to their minds. (I am not saying they would be willing to work if they were not paid. They have settled that; they are going to feed their families.) The first answer given is, "I like my job. They leave me alone. They let me do it my way. They let me exercise judgment. I get a lot of satisfaction. They let me do it my way, so that I can use my abilities and skills. Because I do it my way, I do it better and get satisfaction and recognition."

They then ask, "What about a union?" The reply is, "The union is a terrific thing for the guy down the block, with a dirty, dead-end job and a lousy boss. I don't want one because unions bring rules. Rules mean that I don't have the same flexibility that I now have. The union has a contract with rules; management is going to have rules, too, and the whole thing is going to be very, very different." The pollster then asks, "What do you think of the boss?" The answer: "Pretty nice guy. Matter of fact, I think we are all in this together. If we make this business go, we are all going to do well. On the other hand, if we don't, we are all going to go down together." This is a totally different attitude.

This is not true of all American workers. There are still some people with dead-end jobs, but about seventy percent of American workers have this new attitude about work. It is also a new type of expectation about how they are to be treated on the job.

The Teacher of Tomorrow

This finding has a very important bearing on how we get the teacher of tomorrow. If seventy percent of the people out there—some of whom work in blue-collar jobs, or jobs that require less education than teaching requires—now have as an aspiration a job in which people have a tremendous amount of decision-making power, discretion, and a certain amount of autonomy, then continuing to maintain teaching as a job with heavy supervision, many requirements for inspections and reports, and lots of rules and regulations essentially will drive out the seventy percent of the work force who are looking for a different type of job. We will almost be looking for a minority of people, those who want to make the traditional trade-off, who view this as a dirty, onerous thing, and whose attitude is "We will take the rules and the regulations, but do

not bother us. That is not our job; that is the principal's and management's job."

We may end up with an industry that has the last traditional set of labor-management relations. In our society, as industry abandons those same relationships, something beyond collective bargaining is required, that is, a new type of management understanding, and something more on the part of unions. Either unions are going to become less and less significant to their members, and their members less and less loyal as they perceive unions as failing to address their job-related needs and aspirations, or unions will have to go beyond traditional collective bargaining into some of these other issues. That is not just for teachers. All of the AFL-CIO unions are now having discussions regarding the evolution of less adversarial relationships: can unions show interest in the quality of the product? Can we loosen up on rules and regulations affecting the employees whom we represent, who we never knew existed before? We thought that all they wanted was a buck, but they really want more from their work. Are there ways of accommodating a collective-bargaining relationship to this?

The High Cost of Reform

One more aspect of this that I have seen no one address is that we cannot accomplish the basic things that almost everybody is talking about without a radical restructuring of how the schools operate. Let me just talk about three simple things. One has to do with a modest increase in salaries. If we were to take teacher salaries on a national basis, last year's average was \$22,000. Suppose that figure were increased fifty percent to \$33,000. With pension and tax costs, that is a \$30 billion cost just in itself. A \$33,000 average salary does not immediately say to all college graduates, "This is living." So we have not done very much, but it costs a lot of money.

Next, we listen to Ted Sizer and the few others who said, "If you really want to get kids to be able to think, then they have to be able to put their thoughts down on paper, they have to be able to organize them and write them down, and you have to have the time to read their papers. It takes three or four minutes to read each paper, then you need three or four minutes with each kid, to ask him a few questions, coach him, and get him to re-do it, because basically that is the only way they are

going to do it." I agree with that. We have to do something to change this business that secondary school teachers see 150-180 kids a day. Even if we made a modest move in that direction, reducing the pupil-teacher ratio by twenty percent, it would not do much, considering the time it takes to mark the papers and see the kids. But it does something. It is a significant move.

Then we do one more thing, and we are finished with our reform proposal. The first is salary, the second is pupil-teacher ratio, and the third is giving each teacher a period a day for some sort of peer involvement, professional development, all things that Susan Rosenholtz, Judy Lanier and others talked about. Just those three items, which do not make for an ideal school or ideal life, will cost \$100 billion. Are we going to get \$100 billion? That sum represents about \$50,000 per teacher. It is a lot of money. We are not getting it. What are we going to do?

I know what is going to happen. I can go out there and tell my members, "Let's fight for higher salaries, better student-teacher ratios, and time for professional development." If I live for another forty years, I will be at another teacher convention, and we will be right where we are today, basically. We will improve by three or four percent one year; another year will be a bad economic year; we will go down one or two. We will go up and down. The current period is a good one; we are going to go up, but we will not make any basic changes unless we are able to restructure schools radically. We cannot do these three things unless we can find \$100 billion. We are not going to do it state by state. The federal government is not going to give it to us. Unless we can find a way by and large of doing it within the monies that now exist, it is not going to happen. If we wait for the public to give us \$50 or \$100 billion, it will not happen. All of this is going to be talk.

Either I go out and tell my members lies, something I no longer believe in, or just a ritual, or I stand in front of them and say, "I cannot lie to you; there are not going to be any real changes in the next thirty years. Be happy with what you have. Think of the poor starving children in Ethiopia. You are eating and healthy." I cannot do that either. Besides, things will not stand still. The public does not like what we are doing that much either. So we have got to move.

Some Structural Questions

This leads me to a question of structure. What we have been doing for the most part in reform in education is to talk about how to get better teachers. I think there would be a lot of agreement here if we spent some time on it. You notice that in the auto factory, if they had kept working for years on getting better auto workers, but kept the same tools, positions, and assembly line, they would not have ended up with any improvement. That is because basically the difference between getting a better auto worker and a poor one had to do with how often they got the cricks in their necks. If you take a look at the increase in human longevity and ask yourself how much of it is due to better training by doctors as against having uncontaminated food and water, a knowledge of nutrition and exercise, and all sorts of preventive and public health measures, I think you will find that as much as eighty percent of the improvement in longevity is not due to improvement in the individual quality of doctors. I am certainly not talking against thinking about how to get quality teachers. But I think structure is very important. If we have time later, we can talk about other aspects of structure.

If we are going to accomplish something along the lines of those three items that I talked about, and a different model, I would like to throw out some ideas, including something similar to what Frank Newman, [President, Education Commission of the States] suggested just a few minutes ago.

If we view careers and jobs in our society as kind of an archeological set of layers where people on the top have the greatest prestige and money, then very rarely in the archeological history of careers does any group take a large jump up or down. It is especially true in teaching where we have as many people as we do. Consider two million teachers. First, there is the money problem. Second, there is the demographic problem. That is, with fewer kids graduating from high school and going into college, even if we were to double teachers' salaries, what makes us think the IBMs of this world are going to sit back and let us take the people they need? This is a moving target. If we improve salaries and conditions, then those people who are needed by other industries are going to react and move up. All right, maybe we can have some mar-

ginal improvements, but there is not going to be any spectacular movement, because we do not have a huge number of unemployed, brilliant people out there. They are not there.

A Proposal for a Career or Master Teacher Plan

So we are talking about getting two million brilliant people and keeping them. We talk about those three conditions. We are kidding ourselves. What about doing it differently? What about organizing schools so that twenty-five percent of the people who work in schools as professionals will be career teachers, master teachers, any sort of name you want? But they are people who will earn not fifty percent more, but twice what teachers earn currently. We are not now talking about the same self-contained classroom; we are not talking about these people playing a different role in the school. They are the prominent career work force. In addition to doing a great deal of the coaching thatSizer talks about, they have peer relationships—they do some experimentation. They have a role in the local college or university; they also have a role in the selection of the teachers, and their training and so forth. They do a lot of things that school management now does, as well as some of the things that teachers do.

In conclusion, part one is that the full teachers in the school will be twenty-five percent of the total. Instead of two million, we have five hundred thousand. I am not wedded to that particular percentage, but it cannot be huge, a majority, or seventy-five percent.

Second, take the notion that Frank Newman gave us in terms of ROTC, take what Gordon Ambach is doing in New York in terms of investing maybe \$4000 a year in a scholarship for a kid who is going to become a teacher. (Or better still, why wait four years? A kid who promises in high school that he or she is going to become a teacher may not keep the promise. If you force him or her to teach, what kind of teacher are we going to have? Aren't you better off getting a kid who is now ready to teach, or about ready to graduate? If we pay for a master's or one year of training, we can get that person almost immediately. We can get a pretty high payoff from our programs.)

But essentially a small proportion of the work force, perhaps twenty-five percent, will be permanent and fully professional, and sev-

enty-five percent will be a less professional and transient work force. (I do not like these terms, but if this goes into practice we will find words that everybody likes.) They may be there for five years, maybe under some sort of ROTC ideology. At any rate, the notion is that the IBMs of the future will say that anybody who has spent five years in teaching has done a noble thing, because if they take all the scientists and mathematicians, where does the next generation come from? It is self-interest on their part that teaching for several years will be viewed like serving in the armed forces and receiving an honorable discharge, fighting for your country, or Peace Corps service. It is a noble thing to do.

The savings on the use of such people is very great. Even if the salary is better than most places have now, there are no pension costs. There are all sorts of other long-term costs that are not there. This idea came from an effort to improve law and order in our society by getting an adequate number of policemen. Policemen, after five years, get married, have a few kids, do not want to take any risks, and get burned out. They arrested a few people and found that the courts threw the cases out, so why should they stick their necks out? High school graduates are not very good as policemen these days. With constitutional issues and the like, a college education is really needed. There are reforms like this about to happen in a number of other professions.

The third aspect entails a much greater use of technology, especially video discs and videotapes. The underutilization of these capabilities, by the way, is shocking. Only a few years ago there were not many other ways of representing information except to have people do what I am doing now, and what most teachers do, according to Boyer, Goodlad, andSizer. But when it comes to imparting information, I think it would be very difficult to show that we are doing the rational thing right now. For most topics, such as how Eskimos live in Alaska, the discussions at the constitutional convention, and a whole bunch of other things, there now exist effective presentations in simple formats. The teacher ought to be doing what Sizer talks about—that is, challenge, provoke, and stimulate and not simply impart information. Use of these technologies as a third element in a structure of a school would also free up some time.

Selection of Career Teachers

We can select from this transient work force the best and the brightest to become permanent professionals because of the salaries, power, and prestige that are being offered. How are these people picked? About two weeks ago, I proposed a process which the newspapers picked up as merit pay, and anybody who wants to make trouble for me should call it that. It is intended to reward people who are superior and to provide recognition, so if people have to call it that, it is all right, but it is not the usual thing. It would be a process of identifying people who are now practicing, will practice in the future, have a set of skills and abilities that are unusual, and are the best and the brightest. It would involve setting up a series of certification boards, very much like the boards that certify specialists in medicine or boards that certify actuaries or people in other fields.

People would apply to the field of teaching and would go through a series of steps to become nationally board-certified. I do not envision this as merely taking some more courses or coming in and taking a pencil and paper test. Yes, the person should be damn good in his or her subject. I do not mind having part of it as a pencil-and-paper test, and I do not mind saying that a person might have had to achieve at a certain level in terms of courses. But if I had to create an analogy, I would say it is a lot less like getting a Ph.D. and a lot more like becoming an Eagle Scout in the Boy Scouts. That is, to become an Eagle Scout, a boy starts before he is a Tenderfoot, and he has to accomplish a lot of things. He has to tie knots, memorize things, pass civics, and know about his government. He has to start fires, plan things with a group of other scouts, and do certain group things and certain individual things. He has to know how to swim and how to lifesave. He has to go to a lot of people to do these things. He can do some original things: make his own maps, make some of his own recipes. By the time a boy goes through that process he has done pencil-and-paper things; he has done some things with other people so he gets some notion of his relationship to other kids and to adults within that setting.

The process of becoming a board-certified teacher would not be just a pencil-and-paper process or a matter of taking courses, but would also be something the teacher has done

with students. It might have something to do with observation; it might be something in terms of what the teacher is doing with the school community and other teachers. It might be a portfolio that is the creation of certain models that get kids to understand things right away. It could be conducting some research at the classroom or the school level in terms of trying several different ways and showing that some things ought to be thrown out.

At any rate, the system of board certification would not be done by the American Federation of Teachers or the National Education Association. It would involve the appropriate subject matter groups, like the American Mathematics Association, the Math Teachers Association, the appropriate English groups, etc. They are groups that exist now, and if they were brought together with groups already doing certification in other professions—which is what we hope to do this fall—they could get some ideas as to how to get started. Local teachers' unions could then bargain for extra money for these people. There is no competition if we are equals and you ask me for help. I do not have to say, "If I give you help, maybe I will not be the merit-pay teacher." If I move from one state to another, I am still a board-certified teacher, although the local contract may have different differentials in different places for board-certified people. What I am saying is that twenty-five percent of the professionals who end up running the institution are all going to be board-certified teachers.

Good school districts, by the way, would advertise that they had seventy-five percent board-certified teachers and twenty-five percent on their way to becoming board-certified. Poor school districts would say they did not care, and those in between would advertise different proportions and numbers.

A More Professional Model for Teaching

I would like to mention some of the things I have been discussing with teachers, our own members especially, as to how to bring teaching from where it is now, which is sort of a craft union—a narrowly organized, rule-oriented, traditional factory model—to a more professional model. I would like to touch on a few points. First, there is no profession where there is no entry examination. There just isn't

any, no matter how much we are going to argue the merits of the examination. I am not going to say that an examination gives all the answers to professionalism, but the fact is we live in a society where lawyers go to law schools that by and large have better reputations than the schools that future teachers attend. There is a bar exam, which is basically a national examination. There are medical exams, and exams for actuaries, real estate agents, and almost everyone else. The examination does not tell us who is going to be a good teacher; it does tell us who is illiterate. Unfortunately that is a very important piece of information for those of us in education. We are not at a point where we can ignore that.

Just think of Florida, where they set up teachers' examinations, and something like thirty-five percent of prospective elementary school teachers failed a sixth-grade arithmetic test. Take a look at the current Arkansas exam, where the passing grade was seventy percent, and ask if you would want the people who scored between seventy and seventy-five to be teaching.

I think we have a very serious credibility problem. After people pass the examination, we still must have other methods of finding out if they are the people we want. The exam I propose is not cheap, not the twenty-dollar, multiple choice kind that you can take in a few minutes. I think if we are going to end up with kids who can think and write, we ought to require prospective teachers to be able to organize their thoughts, to be able to persuade, to be able to reason, and to be able to do these in both their subject matter and the professional base of knowledge.

Peer Interaction

Second, there is no profession unless we begin really to increase the amount of peer interaction. Susan Rosenholtz [Associate Professor, University of Illinois], both in her presentation yesterday and in her writings, gives us a very dismal, but accurate, picture of the life of teachers. By the way, it is not going to be easy—we do not have two million teachers out there who are eager to have peer relationships. On the contrary, I will tell you a very sad story that happened in New York City. I met with two chancellors. We agreed on some of these ideas and decided to try them. We picked several high schools where the principal and the

union leader in the school were both good guys and willing to change. We found seventeen high schools in New York City out of 130 where we agreed that was true. We brought together the principals and building representatives in the union. We said to them, "How many of you really like what is going on in your schools right now?" Very few hands went up. "How many of you have a lot of ideas for change?" All the hands went up. "How many of you think the Board of Education is too bureaucratic and there are too many rules standing in the way?" All the hands went up. "How many of you sometimes think the union rules get in the way?" All hands went up.

We told these people, "If you want to do this, you can. You have a whole year, go back to your faculty. Have discussions about how you would like to change the school. Forget about the union contract, forget about the Board of Education's by-laws. You can have all the help you want. We are going to bring in Ted Sizer, Ernie Boyer, and John Goodlad to talk to you. You can have all the free books and literature you want. We do not want to see each school do the same thing. Each school is on its own. We are going to bring you all together once in a while."

We started this process at Arden House, a very beautiful setting. We went through meeting one, meeting two, meeting three, and meeting four. Guess what they said at meeting four? All the teachers looked at me and said, "Come on, Al, cut it out. What do you really want us to do?" The principals were saying the same thing to the superintendent. They could not believe that anyone is going to allow them to sit and plan to make changes. Also, part of the problem is that they did not know what to change. What happened after four or five sessions was, the union people in the school had the same old grievances, saying "Why did you rule against us on that?" The principals replied, "We had to get rid of those incompetent teachers." That is what happened. It was very tough to encourage constructive change.

What is happening in Toledo, Ohio, where outstanding teachers have the responsibility of selecting and training new staff, and indeed deciding who gets tenure, is encouraging. The integrity of this system was shown when one teacher, whose wife was on the executive board of the union, did not get tenure. Awarding of tenure had nothing to do with power relation-

ships. These people were out to see that the system worked.

Board-certified teachers could perform that role; they would have very important functions, including the evaluation of materials and selection of textbooks, video discs, and videotapes. Some of them would also be involved in the internship program of new teachers. These board-certified teachers, who are training teachers, selecting textbooks, and organizing curriculum, should also have status in the local college or university, and they ought to be doing in preservice what they are doing on the job. That is, there ought to be a relationship between the teacher, the university, and the school that is similar to the relationships of a doctor who works in a hospital, is a professor of medicine, and also has a private practice, or the lawyer in similar positions. There ought not to be the almost total separation that there is today. There is a career ladder; a differentiation of staff; and a relationship between the board-certified elementary and secondary school teacher, teacher training, and the university.

Tenure, Incompetence, and Teacher Quality

Third are some issues that come up very frequently: tenure, incompetence, and teacher quality. I have some proposals for these areas. I do not want to wait for a lot of legislation. As a matter of fact, I do not think many of these things should be done through legislation. I propose to our members that they try a new system to remove someone who is incompetent. I think the current adversarial system is a perfectly good one for getting rid of someone who hits kids every once in a while, or goes fishing every Friday and Monday. These things involve very clear evidence and the same sort of witnesses that you need in a murder trial or an armed robbery. Did you see him go fishing? Was he absent every so and so? Who saw him hit a kid? The different parties have their own witnesses and lawyers. We have decided in our country that is a fair way to do it.

What I think is idiotic is to bring the question of teacher competence to a bunch of lawyers to argue about. That is ridiculous. All it proves is who has the best lawyer. A lawyer might prove something about the nature of the system, that is, who ultimately makes the

decision. You see, hitting a kid is something that happened last week. Once a guy is blamed, he is going to stop. You have to have the evidence. But if someone was incompetent last week, he or she is probably going to be incompetent this week and next week, because it is an ongoing thing. The question of whether a principal is right or wrong when he says Teacher X is incompetent and ought to be removed should be evaluated by a group of professionals.

I have urged our locals to set up committees like the one in Toledo. When Teacher X is accused of being incompetent, we will select three outstanding jurors, that is, people who do not know the teachers or the principals, but three outstanding (and in the future, board-certified) teachers. We will say to the teacher and the principal, "We have three outstanding people who want to go in and see who is right and who is wrong."

Suppose the principal says, "I am glad somebody is going to come in. I am sure any reasonable person who looks at this teacher will agree with me." Suppose the teacher says, "Me, too. He is crazy. I am a terrific teacher." Now if they both agree to abide by the action, fine. However, what if the principal says, "No, I do not want anybody looking at this teacher. Let's take it to court." In that case, the panel appears before the tenure committee and says, "The teacher was perfectly willing to be looked at, but the principal would not let the team in." Now that is not proof that the principal is guilty; it is just like taking the Fifth Amendment. It indicates that he may have something to hide. Suppose it is the other way around. The principal approves bringing the people in, but the teacher says no. The panel would say that the teacher was unwilling to have anybody look. That would say something about the teacher. Suppose they both say no, then you are back in the old system.

The public will never give teachers, as a group, the kind of professional power we are talking about in terms of educational decisions unless teachers are viewed as a group that cares about the problems of the profession, including the issue of incompetence. I am not asserting that teachers do all these things because that will enhance their power. I am asserting something quite different. First, we are not going to attract good people unless the job gives them a sense that what they have to offer

makes a difference. Second, what they have to offer has to be based on knowledge. I am talking about giving power to teachers because they are teachers. At the present most teachers could not use this power, because most teachers do not really know what a good textbook is. Would they know how to train a new teacher, or would they even want to? Do they really know how to evaluate some of these audiovisual materials? These abilities would be identified in the process of national certification. The kinds of things that the national math, English and history teachers have to sit down and ask is, "How do we test whether a person knows what the decent materials are? How do we know that a person really has the knowledge base?" At present neither the teachers nor the administrators have it. We have not been oriented toward that.

One example of that is in the field of reading. Those of you who have not read *A Nation of Readers* should do so. While it looks like a very simple report, it is very sophisticated. We have some pretty substantial knowledge in a few fields, the reading field especially, and it is not being used or taught anywhere. It is bad enough when you do not know; then you ought to be researching and looking. But we know a tremendous amount about why kids do not learn to read—and it is not phonics, it is not word recognition, it is something totally different. The power of these teacher groups would be like that of the committee or the bar association, but within a school. This is obviously consistent with Frank Newman's model.

In conclusion, there is a new type of employee emerging who is not going to work in traditional factories. There are not going to be enough talented people to staff our schools. Even if we make \$100 billion worth of changes, we are not going to get \$100 billion. None of these reforms that are being legislated now are going to be delivered without substantial changes. The changes are not going to be made because we are thinking of the model we have right now—we are just thinking of getting dollars that we cannot possibly get.

The model I have just talked about is not the only possible one, but if we do not think in terms of some radical alternatives, there is no way to accomplish the things that everybody is discussing. And if we do not accomplish these reforms, we are in for a hell of a time politi-

cally. Remember, we were in lousy shape before reform. A lot of people expect changes. They believe reforms are going to happen. Four or five years from now, if people take a look, and education walks and talks the same way it did ten years ago, we are going to be in serious trouble. People are going to look for alternatives. The auto industry went through this; so will public education.

FRANKLIN WALTER (Superintendent of Public Instruction, Ohio): I think your points are exceedingly well made in terms of the tasks before us. I would like you to address the concern about the seventy-five percent who are in the profession, who know that only twenty-five percent will become career teachers. What kind of incentive would there be for them, and what kind of reaction do you get from your membership when you state the fact that they are not going to get a fifty percent across-the-board increase in salary? We are not going to reduce classloads, nor will we have the peer interaction you describe.

MR. SHANKER: In terms of the seventy-five percent, this is no radical change. We have it right now. We have a permanent work force and a transient work force. We have had it in teaching for years. If I were the President of the American Federation of Ex-Teachers, I would be the head of a much larger organization. Everybody out there is an ex-teacher. I meet them every day walking along the street. We have people who stay and people who go. The only question is that, at present, with the exception of a certain number of very dedicated, talented people who stay no matter what, many qualified people leave. The transient work force are the qualified people who leave. They have a lot of opportunities. A lot of people who are not so good and have no other opportunities are the ones who stay.

I would like to turn that around. I would like to keep the best and the brightest. I also think that we can get a lot of terrific, very bright people, people who want to work with kids for five years, and who will be recognized later on by industry and by the country as public servants. I want to make it hard to get into, like ROTC. I want to give them some rewards. I think we will get a much better group of people. We will get a lot of people who will say, "I want to do this. I don't want to do this for my whole life. I don't want to be

locked in with a bunch of kids for my whole life. I have other aspirations. Sure I am willing to do this now. It is going to do some things for me professionally. It will get me some recognition."

Currently, we have a permanent group and a transient group. We must ask ourselves, "Who is staying and who is going?" How do my people take it? I am going to have to get around an awful lot, because the NEA is putting out stuff saying Shanker wants to reduce the work force by X percent. He wants to have temporary people and merit pay. We had a professional conference about ten days ago; about 1,500 teachers from across the country met in Washington, D.C. I made these same remarks there and distributed some of them. When I started doing this about two years ago, even our executive council people said, "Watch it, we are going to get into an awful lot of trouble. If you even talk about these things, management will take advantage of you. If you open your mouth, some superintendent in another state will say, 'Al Shanker says so-and-so. He says it right at the bargaining table,' and people will just go off the wall."

At this conference we had 1,500 people who were happy, high, and cheering. You know why? Because for the first time in their lives they did not have to keep their mouths shut. They were able to talk about anything that came into their heads. They did not have a feeling that it was anti-union, disloyal, or anti-teacher to say a lot of things people have been thinking about. People do not go into teaching to get rich. We know that, but they also do not go into teaching because they were born with a union label somewhere on their bodies. They have a lot of professional interests.

The arithmetic speaks for itself. I will stand before any group of teachers and show how three modest, simple proposals that they will feel do not go far enough, cost \$100 billion. And I want to know where you are going to get the money, and what are the chances. So either give up on what you are doing, or get out of the profession, and let some people who are willing to live with this come in, or come up with another idea. Do the simple math on it. We cannot do it economically without doing something very different, but there is no way of advancing the simplest things that we want—a little more money, a little more time, a little bit more individual work with your students. *We cannot do those things in the current*

structure. It is economically and demographically impossible. Other industries and other fields are not going to give up two million people of this calibre. They do not exist. You will not get them. You come up with a little more money; they are going to take it. If you do not have an answer to that, you are not a union leader. Where are you taking your people? You are just giving them a lot of empty slogans. You are fooling them.

BILL HONIG (Superintendent of Public Instruction, California): Three questions: first, the management literature does not quite say, "decentralization," pure and simple. It says something a little more subtle—that you can only decentralize if you are working on a common, general goal or vision. If we are going to decentralize (which I absolutely agree we must do if we are going to make it), we also have to put some time and effort into developing a general sense of where this step will take us. I do not think we should adopt the university model, which is individual professors or entrepreneurs on their own. They come together every once in a while, but they basically make their own decisions. How should we decentralize? That is the first question.

The second question is a technical one. You mentioned board-certified math, science, and history. That is fine for high school. What do you do in elementary school? Elementary education is a little more complicated, and I am not sure I would trust the math people alone to determine what we teach in math and how we certify it. That report you talked about from the University of Illinois was actually an institute which was in place for two, three, or four years. They put a lot of time and effort into assessing what makes a good reading program. They did the research; it was not just the International Reading Association that did it. It was a much more organized and complicated endeavor than that.

The third question has to do with something that you have touched on and needs a lot more specificity. That is the whole concept that there are short-term union gains from controversy. Most of the local union leaders, site leaders, and district leaders understand that principle and frustrate this type of collaboration. It is not enough just to change the signals; your example shows that we are going to have to train some people in how to organize for team-building. It must come from the unions as much as from a good instructional

leader in management. If we brought those two people together and trained them, then we could break down this wall of isolation. Just as we train union organizers, we must train faculty-building organizers. Then we might have a chance of this happening. It is very tough to do, and changes a whole way of looking at things. I think we need the technical help.

MR. SHANKER: I agree with your first remark. You can only decentralize if you have what is called a corporate culture or sense of mission. Otherwise it will all fall apart. I am fascinated by the fact that no state or group of educators is engaged anywhere in what I would call pre-emptive reform, except maybe New York State, with its Regents Action Plan. Look at what reform has meant in many of these states: it is really the legislature and governor telling the educators that we have not done our job, and that only by passing a 150-page book of rules will we shape up. I would imagine that after they did it in California, Texas, and a few other places, folks in Massachusetts would say, "We are going to engage in pre-emptive reform. We are going to do things ourselves so that when the legislature comes along we can say, 'You do not have to do it for us. We saw what happened there.'" As I go across the country to those states where they do not yet have reform and ask school people at every level what they are doing, they say, "We are waiting to be reformed. We are waiting for them to do it to us," which is a very sad comment.

Second, it is difficult at the elementary level, but I am sure that it can be done. I agree with your statement that it should not be the subject matter people alone. The people who are working on the Holmes Group, in addition to coming up with a proposal for teacher education, also have a lot of smarts as to the content of the knowledge base. For instance, we know this stuff on cultural literacy. There are these things which you will not necessarily find with the English teachers, but you will find somewhere else. So one of the things that has to be done in the shaping up of these boards is to pull the knowledge base together. Sometimes it is in an education department, sometimes with a particular team of people, like the University of Illinois with reading. More of those centers are needed.

On the team-building issue, there are things

you can do. It is very hard. It is hard for either side to do. There are pressures on management to show the public that it is tough. Look at all the cheers that management gets if it announces it is going after incompetence. Some of the nastiest moves are the ones that get the greatest cheers. They are also the ones that get the teachers to be least cooperative. The same is true on the union side. There are certain unusual things that can be done over a period of time that will help to build teams. One problem in being a union-building representative is that he or she not only takes grievances, but gets called at night with questions about pensions, social security, and so on. If there are a couple of people in the school who are falling apart, the building representative becomes their guidance counselor. It is a very onerous job. Some dedicated people will take it for a year or two or three, but there are also a great many schools where no one wants that job, except some person who has a lot of hostility to work out, and he will volunteer.

We get a lot of that. It is unfortunate but true. On the other hand, when I sit down and say I want to negotiate to give the building representative one period a day when he does not teach, management says, "What? Give the guy who is taking grievances even more time to take grievances. That is going to kill us." Actually, if we could make that a desirable job so that very representative and outstanding people would vie for it, we would end up with different people on the other side.

In Toledo (you only read about one part of the Toledo plan, that is the internship program), there is an intervention program. If an experienced teacher begins to fall apart, that same group of outstanding teachers will try to help that individual. If the teacher cannot be helped, then the group will recommend removal of that teacher. But this is something that helped to pull Toledo together, which had been beset with adversarial relationships and strikes every year—the community voting down the money and the schools closing X number of months—a classic case that was turned around, very fast. One thing they did was to put the union building representative in charge of the school whenever the principal leaves. For this, the Board of Education gives the building rep an extra \$3,000 per year. All of a sudden, the best and the brightest run for the job. It is interesting that when the union building representative is in charge of the

school, he says, "Hey John, didn't you get to your class on time? The kids were waiting." He is being paid to take a management point of view during that time.

Now we do not have an easy time selling that to our members. But this is a structural idea as to how to get away from this business of your side and our side, and create some incentives to get different types of teachers to compete for that job, and to give those people on-the-job education in doing things from a slightly different point of view.

JOHN H. LAWSON (Commissioner of Education, Massachusetts): Could you go back and talk in a little more detail about the issue of teacher decision-making? It seems to me that in our discussion of where we are and where we want to go we very often put that on the back burner, in a less important role than it deserves. Classroom teachers with whom I talk in Massachusetts tell me that it is not money or evaluation, but their inability, or their perceived inability, to make decisions that they most dislike about their job. I think it would be helpful if you would give your views on the importance of classroom decision-making.

MR. SHANKER: Yes, they say that. They do not always mean it. They know what they do not like. They do not like being locked up with the kids. There is all that isolation. They also do not like constantly being subjected to external changes that they neither bring about nor view as rational. Teachers view the constant changes as ways in which the school boards or management establish credibility with the public by constantly innovating for the sake of public relations, whereas they have to pay the price by changing their plans, changing the way they do things, and changing their relationship with the kids every time. This plea for more decision-making authority is really another way of saying that they do not want others to be constantly telling them to do things that they do not believe will help the kids or help them. It upsets all their ordered relationships.

We saw the problem with teacher decision-making when teacher centers were created under the Carter administration. Most teacher centers turn out to be lousy because of the mistaken concept that all teachers are equal. In Britain and Japan the assumption is that some teachers know more than others do. It is

assumed that some are terrific, but they do not want to go to the principal to confess that they never really learned so-and-so, because it might be used against them. They will go down and tell other teachers from other districts, so they can have a set of collegial relationships and be helped. But the assumption is that teachers really know what they are doing.

American teachers do not start out with that assumption. They assume everybody is equal. Since we did not select outstanding people on some basis, a lot of these centers just became places with mimeograph and xerox machines where copying was done. That was because there was no assumption that somebody knew something, and that somebody else needed some help, or that everybody had to share in some way. It was sort of a "show-and-tell" kind of thing.

What we need to establish here is that while doctors and lawyers make decisions, they do not make them on the basis of what they as individuals want to do. If you went to a doctor who said, "I know what you have. Every other doctor would give you this and that would probably take care of it. But I am not that kind of doctor. I am bored with the usual practice. I am going to do something different to you," you would run away. If you reported him, the profession would go after him.

The profession is free, that is, a doctor is free to exercise judgment to do what every other doctor would do in his place, not what he wants to do individually because it would make him happy. It is based on professional, group decision-making. That is what a lot of teachers do not understand. They do not understand that if they have the power to do things, they may have less discretion than they now have. Right now, how often can you actually go and watch a teacher in the classroom? There is a lot of teacher decision-making in the classroom. Right now, they do have a lot of people from outside telling them what to do. What they miss is any collective process of arriving at a decision of what is right, what is really good, and what works, with a group of people that they respect. These are not decisions from a political sector that they feel are hitting them for totally different reasons. We do not need every teacher individually deciding what the right textbook is. That is wrong. We are going to get two million different decisions, most of them bad if they are not informed.

The reason we do not stand over the surgeon and watch him cut, the reason most other professions are relatively free of supervision, is due to the quality of the person brought in, the kind of training that person had, and collegial relationships that enable the person to talk frequently with people who do the same kind of thing. They inform each other of things that work and do not work, and the latest things that have come out. That is what is needed. You are hearing the same things I am hearing, but what I am talking about in terms of empowerment is not what that teacher is talking about. That teacher is saying, "Stop pushing me around. Stop telling me every couple of years to use a different set of books. Leave me alone." I am not saying that. I am saying, "Let us develop a process within the profession that finds out what works and what does not; let us devise a process that does not stand over people and supervise them because there is a process that allows you to trust the person to do what the profession had decided should be done." This is a different concept.

FLORETTA MCKENZIE (SUPERINTENDENT OF PUBLIC SCHOOLS, WASHINGTON, D.C.): A number of the ideas that you talked about are process kinds of things. It seems to me that our basic problem is that we are not product- or outcome-oriented. How do we get the teaching force, after getting an increased salary, a lower pupil-teacher ratio, and more time for professional development, to come together and agree on what our outcomes should be?

MR. SHANKER: Well, we cannot. There is no profession that agrees on outcomes. We can agree that we want literate people, people who read Dickens and Shakespeare, know mathematics, get jobs, and participate as citizens. But the medical profession does not guarantee that every patient will live. A lawyer does not guarantee that you are going to win your case. You can expect that the professional will bring to bear a body of knowledge. We in teaching cannot say that we do that. You can say that the professional is going to explain to everybody why a certain course of action is taken and to justify it. We frequently cannot do that. Let us not exaggerate what it is that other professions are able to do. By the way, if we look at medicine, it is only since World War II that there

really have been any drugs. Before that, there was practically nothing. Surgery was pretty well developed, but what was available before sulfa? It was a very limited range. Yet, medicine was a respected profession during the 1930s.

Let me give one example. I am going to talk now about the results of using a certain process. I am going to talk about literacy, which I alluded to at the end of my presentation, and about what is known. It is sitting out there, and if somebody wants to go out and disprove it, go ahead. If you cannot disprove it or do not want to, you ought to adopt it. Otherwise you are being negligent, professionally or morally. Mr. Hirsch at the University of Virginia, some people at Stanford and Illinois, and others have found that our problem in getting people to read is not phonics or word recognition. We are doing much better in phonics than we used to, we are doing pretty well in word recognition, and as a result, scores are going up in second through fifth grades. But all of a sudden, when kids really have to read something in seventh through tenth grade, we find they cannot read. They cannot put it together.

So Mr. Hirsch has found something and made it known. It has been out for a number of years. It is dynamite. I do not know why the educational community has not embraced it or shot it down. He says that reading is not a purely formal skill. It is not just a matter of decoding words or recognizing words, but also a matter of content. If you do not bring to reading a great deal of knowledge, you will not understand what is on the written page. That is because people who write for the average reader (except for "Run, Jane, run," where one does not have to understand anything) assume an awful lot of knowledge.

For instance, a fellow is standing in Harvard Yard and asks, "How do I get to Central Square?" Everybody thinks he is from Harvard or Boston and says, "First stop on subway." The next day the same kid comes in dressed like he is from Missouri. He has an accent. He says, "I am from out of town. How do I get to Central Square?" The same people say, "Turn around, go two blocks, turn to the left and go another two blocks, and you will see a kiosk. That is the subway. Go downstairs to the subway. Be sure to take the train marked north. Get off at the first stop. Then you are at Central Square." One case is six words, another case is sixty. Why? It's because

one assumes that the first guy knows the lay of the land. That is how people write books. They assume that the reader has a great deal of previous knowledge.

What is it that we need to know? I will give you a clue. We can read Abraham Lincoln today. It is not very difficult. We can read Ben Franklin. What we need to know is pretty much the same sort of background knowledge that Thomas Jefferson, Ben Franklin, and Abraham Lincoln had. It is Adam and Eve, Noah's Ark, and Daniel Boone. It is George Washington, the Sahara, the Himalayas, the names of oceans, the names of myths, and all sorts of things in our common culture that we have to know, because those things keep coming up. And if students have to look up something in every sentence, they are going to be lost.

Are kids getting those words now? The answer is no, they are not. Why aren't they getting them? It is very bad for teachers to get kids to memorize. You can always look it up, right? This whole critical thinking movement dumps on memorization. A student does not need to know a subject or memorize; all he or she needs to know is how to think. Secondly, insofar as the teacher does take up specific things, they must be things that the kids are really interested in. What are kids interested in? Rock stars and sports stars. So the teacher does not give them all this traditional information. Rock stars and sports stars change very quickly. They are not going to come up in very much general literature. Teachers are not giving kids much of a background if they spend much of the time on rock stars and sport stars.

Third, a very important agenda, but one which tends to push out the traditional agenda, is the need to provide role models for ethnic minorities and women. To the extent that we put a cultural curriculum in, we have moved a lot of traditional topics out. I am not saying that we cannot do some of all these things. We should, obviously. But the fact is it now possible to put together a list of about four or five thousand words that are essential to know. A kid does not have to know much about Adam and Eve, the apple or the serpent, or the Sahara, but a picture should come to the kid's mind when somebody is writing and trying to create a description.

Essentially this view says that if the second-through-fifth grade curriculum does not give kids these five thousand words, without which

the kids will not be able to read an ordinary magazine or book, even if the kids know phonics and word recognition, they will grow up to be illiterate. They need that content. This, of course, is an oversimplification; there is more to it. Nevertheless, this material has been out for a number of years now. What effect has this had on the teaching of reading and on curriculum in any state? Where is it?

Not to utilize this knowledge is irresponsible. There is a very powerful example. There are a lot of experiments that have been conducted with it. Take a boy who is an eighth-grade reader, but who has never seen any baseball. Give him an article at the eighth-grade level about baseball. He will not understand it. Give him an eighth-grade level article about soccer or cricket. He will understand it, because he grew up in England. That is the kind of thing that has to be at the center of both the curriculum studies and what is taught to teachers, and the board certification process, as to the kind of knowledge that all future professionals must have. We do not have it in all fields yet.

GERALD N. TIROZZI (Commissioner of Education, Connecticut): What is the role of the principal, in terms of your model, and then beyond your model? If we move in the direction of the career teacher, the twenty-five percent you spoke of, that does bring into question the role the principal plays. There may very well be a conflict situation. I would hope not. Second, would we even need a principal if we were to go in that direction? Most of the literature on instructionally-effective schools speaks to the important role of instructional leaders. What are your views from a teacher's perspective as to the degree to which principals are in fact instructional leaders? I personally believe that most lack that skill. I also believe that most of them are not capable of providing that leadership, even if trained.

MR. SHANKER: The instructional leader of the school is whoever happens to be the instructional leader of the school. I used to work at summer camps, and one year I hired a music counselor. There she was playing the piano, and over here was a kid who was not hired as a music counselor who had his guitar. There were 500 kids around the nature counselor with the guitar, and nobody near the

woman with the piano. Who was the musical leader of the camp? Sometimes the instructional leader happens to be in one position, sometimes another. If we have schools that are structured so that the instructional leader does not happen to be the principal, can he or she still carry out the function? Or do we have to fire that person and put in someone else?

By the way, I read the literature on this. We had a national meeting with many scholars. One of the things said was "Research shows that at good schools the principals are the instructional leaders." Everybody just cracked up. The writers of the effective school literature believe it, and some principals believe it, but if forty teachers crack up when they hear it, maybe there is something wrong with it.

There are many different models that one could establish. I happen to believe that one way or another, we are going to need principals. In the model that I am talking about, the line between management and labor is obviously much fuzzier. Much of what happens in a Japanese factory is that there are fewer levels of supervision and fewer supervisors, and the workers on the assembly line are given more time to discuss things with management and each other and to learn methods of statistical sampling, quality control, and things like that. In a sense they are talking management functions and saying, "We will have fewer people who are actually managers and we will give more time for management and peer relationships at a different level."

By the way, there are some very serious legal problems there. Under the *Yeshiva* decision, as soon as unionized people begin a process in which they are involved in any traditional management roles, they lose their collective bargaining rights. In Ohio, Toledo had to be given a special dispensation to do this under the new collective bargaining law. What they were doing came before there was a law, so they were allowed to do it. But under usual labor relations traditions, as soon as teachers assume other responsibilities, they are considered part of management. There is some interesting work to be done in the legal area.

I think the toughest time we are going to have will be with middle management. If you read all the private management materials, the *Harvard Business Review*, the Wharton School publication, and others, middle management is the toughest group to deal with in any of

these quality-of-work-life programs and in any of these change processes. It is very difficult for those in middle management to understand what they will do if other people do what they are now doing.

When I am in groups of principals who raise that question, I just say that I became president of what was a fairly small union in New York City, and it grew into the largest local union in the world. It now has 76,000 members in one local in New York City. We grew from having three staff members to a budget of over \$34 million. At a certain point I started hiring a second, third, fourth, and fifth person. My friends began to say, "Al, this is great. We can hire all the members of our caucus. We will be in great shape. We can keep you in power. We will go out and campaign. We will be the ones who are handling people's grievances, doing them favors, and answering questions."

Early on, after hiring a few people, I said I would not do this any more. That was the time of school decentralization. I said, "We are going to decentralize the union before the school system decentralizes, for two reasons. One, our structure should parallel the structures out there. But most of all, there is no way I can really keep tabs on what is going on in thirty-two districts and a thousand schools. Therefore, we are going to elect all the staff people out there. We are going to pay them, train them, and offer them legal services. We are going to become a service and a training bureau for all these people out there."

My closest associates said, "You are crazy. They could run against you. They could decide to pull their districts out. You will not be able to fire them. They are elected. They are like congressmen. You will be like the President of the United States trying to deal with the congressmen, who will tell you where to go. What you are doing is destroying the organization; you are pulling it apart."

At any rate, the organization runs pretty well. It has all the problems that you might expect with a structure like that. It is not perfect. But I still have plenty of things to do, and more important things to do. I do not know of any manager in an important and growing organization who does not constantly divest himself or herself of all sorts of levels of activity, and then find that by doing so that there are some important things to do.

I think it would be very good to go to Toledo

and ask those principals, "What do you do now that teachers are selecting and training new teachers and have an intervention program? Are you not needed anymore?" The polls show that the principals accept it and like it, as do the teachers and the community. So they must be doing something right. I am sure that if principals were just sitting in their offices and had absolutely nothing to do, even if they were getting paid, they would not like it. They could not look at themselves in the mirror.

CALVIN M. FRAZIER (Commissioner of Education, Colorado): I think the heart of the continued existence of teachers is really tied to Floretta's [McKenzie, Superintendent of Public Schools, District of Columbia] question. If there is anything by which state superintendents, commissioners, and boards are really being challenged, it is by the quality and the product of the system. Thus far, it seems unions are continuing to deal with the process, but cannot involve themselves in decisions dealing with the improvement of the quality and options which may in the end adversely affect the membership. So the superintendents and some of the rest of us are finding it increasingly difficult even to work through the unions as a vehicle for the solution of the public concerns. We cannot bypass or minimize involvement with the very group that has to be involved with the implementation of this, which could guide the system to be less effective and ultimately bypass itself in the creation of voucher systems and others. You see, I do not think you answered Floretta's question about quality and outcome, and yet, if there is any issue we are challenged with, that is it.

MR. SHANKER: I thought I answered it by saying that no profession ultimately guarantees something for everybody. There are failures in all the professions. There are things that doctors do not yet know, new diseases that arise, new epidemics. We do not turn around and blame the medical profession. All we can demand of them is that they do everything that they know how to do, and second, that they try to find out what they do not know. In those two areas, we are subject to blame. We are not doing everything we know how to do in education. Secondly, we are not engaged in a real search to find the answers in those areas where we do not have enough knowledge.

For instance, we know that ninety-five percent of the kids who reach fourth or fifth grade without knowing how to read, write, and count will not know how to read, write, and count after that. That is, at a certain point, the student loses hope, begins to feel the school is a hostile environment, and says to himself, "I'm stupid, I'm ashamed." We know what we are doing will not work. But how many places are really trying some very different things? So those are two areas in which we are deficient.

We know we have a very big problem with dropouts, with completion of high school. To what extent do we really try new things? I am not talking public relations. Suppose you are a kid in high school. What is a teacher told to do for the first three to five weeks? "Don't crack a smile. Be tough." A teacher trying to get control of a class will behave in this way: tough, hostile, maybe a little bit mean. Now put yourself on the other side. You are a high school student thinking about dropping out. You do not think very much of yourself. You do not think you can make it. A teacher is being tough, antagonistic, and unfriendly to you, as he or she tries to establish his or her authority. The kid might actually drop out as a result of that first set of encounters the first week with a very stiff, tough, unfriendly person.

Take a look at that kid. Here it is September, the opening of school. When is the payoff? Next June—the final report card is not until next June. How many people will feel that if they miss a few days' lessons and do not do their homework in September and October, there are really going to be dire consequences next June? Why do we have annual promotions? It is easy on the paperwork. What if we have semesters every three or four weeks? What would it do to teachers if they knew the final exam was three weeks from now? What would it do to students? What would happen if a kid failed? Right now, if a kid fails, you have to leave a kid back a whole year, or promote him. Both of them are bad. If you fail a three- or four-week course, it is easy to make up. What happens at the end of the year when you have lost a kid? Do you know when you have lost him or her? You do not.

You cannot separate the product from the process. Do you know what we usually do as educators, principals, and teacher-union people? We say to parents, "You know, nobody really knows what works. It is all a matter of opinion. This teacher does it that way, and it is

wonderful, and that teacher has a different style." The teacher unions stand up and say we cannot have merit pay because it is all a matter of opinion, and it is all a matter of reward and punishment. What we are doing is telling the outside world, "We do not know what we are doing." Then we wonder why we are in all this trouble.

I think this is responsive to the question of the outcomes. Do we say, "We know the following things; we know that they work, and we are going to get everyone to use them?" We should not be innovative in an area where the right way is known. Second, we should admit what we do not know. We are engaged in an intensive search to find out what we do not know. Third, we are constantly changing the structure. Just as the factory conditions (where the worker stands, and so forth) are adjusted based on reports from workers, we should do something in terms of structure. That includes the size of semesters, the investment in early childhood education, and some sort of second chance at the fourth- or fifth-grade level for kids who have not made it. It includes a whole bunch of things that nobody talks about anymore. The whole theory now is if we can find ways either to develop better teachers or fire the bad ones, then, suddenly, the output follows. That is not the way.

If we do these things, the question of the final product will take care of itself. The final product in these various plants is not the result of finding a better worker or a better manager, in and of itself. It is developing a better system in which people are encouraged to think and care about what they do, to report about what goes right and what goes wrong, and constantly to notice that the material that came in this week is a little softer, so that something ought to be changed. Even in the factory, things are constantly changing, the materials that come in, and so on. This is the way things happen.

Essentially, it is the development of a system in which more and more people exercise care, judgment, and intelligence at every level. When that happens, we end up with a better product. We shall not have to recall thirty, forty, fifty percent of them, but only a very small number. You get it right the first time. The response to the question, "Are we going to be doing a much better job with the kids?" is only going to be adequately answered in terms of a system in which everyone is doing the

thinking and caring, and is involved in improving, *and* in which the knowledge base is used and is constantly being improved. If we have that system, our product is going to become constantly better. If we do not, there is no mechanism we can put into place, like evaluating teachers or anything else, that will maintain the quality of education.

STEPHEN KAAGAN (Commissioner of Edu-

cation, Vermont): I would like to thank you very much for that. I think it was a great session. I would like to thank you for two things. First, for retracing the fundamental role of teacher empowerment in making any real changes in education, and in an overarching sense, for your realism about the connection between what is happening economically, politically, and educationally and what the teacher corps of the future might look like.

**PANEL DISCUSSION:
ALTERNATIVE SCHOOL/COLLEGE COLLABORATION PROGRAMS**

Franklin B. Walter
Ohio Superintendent of Public Instruction
Moderator

Presenters:

Irene G. Bandy
Assistant Superintendent of Public Instruction, Ohio

Edward L. Dambruch
Director, Basic Education Unit
Rhode Island Department of Education

Everett Harris
Associate Professor, Vocational Education and Technology,
University of Vermont

Recommendations:

Stephen Kaagan
Commissioner of Education, Vermont

DR. WALTER: Had all of you been privileged to join us on Sunday, as we had a very long work session with the Board of the Council of Chief State School Officers (CCSSO), I am sure you would have left with the feeling that I had, that the issues and concerns in American education are, in fact, being addressed by CCSSO. I say that because, as we talked about teacher education, about assessment, about technology in education, and about the twenty or so pending projects of the Chief State School Officers, these topics were certainly on target with the dimensions of educational improvement that have been in the forefront in America during the last five or six years.

Very importantly, among those projects is a proposal to continue our relationship with the Mellon Foundation, a relationship which began in early 1981 and saw its fruition the same year with our summer institute, where for the first time, the community of higher education and the chiefs came together to talk about linkages. From that relationship, which has represented an investment by the Mellon Foundation in an excess of \$700,000 (which I think is tremendous because that gave the Council an opportunity to work in a very vital area of linkages between elementary and sec-

ondary education and higher education), came the projects that you are going to hear described today. These projects relate to how we strengthen that linkage as we go about the business of improving not only the relationship between secondary education and higher education, but more importantly, how we strengthen the preparation programs for our students in the secondary schools in accordance with reasonable expectations when they enter higher education, whether that be in technical education or traditional four-year programs.

Beyond that, we will be presenting a way that parents become involved in assisting their secondary students to make choices. So, this afternoon, we are building upon the past successes of funding by the Mellon Foundation by presenting to you three separate and distinct state projects that relate very closely to the whole matter of linkage. Following the three presentations, there will be a discussion of matters relating to those linkages and other matters you may wish to bring before us.

It is my great privilege to introduce our first speaker this afternoon, Dr. Irene Bandy, Assistant Superintendent of Public Instruction in Ohio, who has been instrumental in imple-

menting the Ohio Mellon Project and who has been deeply involved in the steering committee of the assessment project for the Chief State School Officers.

DR. BANDY: Thank you, Dr. Walter. It is a pleasure for me to be here today to represent the Ohio project, although many people in both secondary and higher education worked very diligently for the results of our project. In order for you to understand how we got to our proposal, I would like to share with you a bit of the background of the articulation movement in Ohio.

In 1979 the Ohio legislature became somewhat concerned over a \$12 million annual expenditure for remedial courses in higher education institutions. With the concern for how better to use those dollars for more development rather than remedial studies, they mandated the Ohio Board of Regents to do a study of all of the students in the freshman class in remedial courses in mathematics and English in all the institutions funded by state dollars. They reported by school district, so that everyone knew how many students from each high school in the state of Ohio were in remedial math and remedial English courses.

When the Board of Regents put their first report together, Dr. Walter, our State Superintendent, and our Chancellor at that time, Chancellor Moulton, decided that an examination of the secondary schools was needed to determine what was happening in the remedial courses, and how best to address the issue. At that time, it was determined to empanel a Commission on Articulation between Secondary Schools and Ohio Colleges. The Board of Regents nominated seven people, including college presidents, deans of colleges of education and arts and sciences, provosts, and faculty, and the State Board of Education nominated seven members—one of whom, Dick Boyd, is here today—who represented superintendents, principals, teachers, counselors, and Board members, as well as parents.

It was then determined that a non-educator should chair the Commission. We were very fortunate to appoint the then President of Battell Institute, which is a very large international research institute. The charge to that commission was to determine what skills, what knowledge base, students should have as they enter higher education, and what, if anything,

secondary and higher education should be doing to prepare those students.

It is very interesting, because in Ohio we have an open admissions law that states that any child who graduates from an accredited high school must be accepted into one of our state institutions. So the concept we were dealing with was not so much how do students get into colleges as it was what do they need to know to stay in, because many of our students, unfortunately, were not finishing their four years of college.

The other interesting development about this meeting between the Chancellor and the State Superintendent was that it was the first joint venture of the two boards—the Board of Regents and the State Board of Education. We feel strongly that this was a good step, and we have been meeting with them at least twice a year since, thus allowing the collaboration to continue.

In April 1981, the report of the Commission was given to the two boards, with nine recommendations. We looked at courses, and, interestingly enough, the Commission on Articulation in Ohio determined that students going on to higher education should have four years of English, three years of math, three years of social studies, and two years of foreign language, sounding very much like the *Nation at Risk* report. So we know where they got their information. We did, by the way, testify to that group.

The courses were to be used for unconditional admissions to the institutions of higher education. The different institutions are autonomous and, therefore, looked at the recommended courses individually and came up with their own combinations. Not all of them have accepted all of the courses.

The second part of the recommendation on courses was the content. It was very important to the Commission that we not just name courses, but that we talk about skills within those courses. As a second phase to our work, we empaneled task forces of collegiate as well as secondary faculty, who determined (as we have written now in reports to all of our secondary people) what the content should be in all courses of math, English, social studies, and so forth.

In addition to curriculum, we looked at teachers, who of course are a primary focus of this Institute. We decided that there were three points we needed to address. One was

our belief that grade inflation was an issue at all levels, from kindergarten through postgraduate school.

A second point was that all teachers should be involved in writing, and should have writing as part of their course description for mathematics and science as well as English. In addition, as we looked into the revision of our teacher education standards, we would consider the possibility of teachers going back and taking undergraduate content courses, as well as graduate level work.

The third area was communication. We talked about communication between people in higher education and secondary education, particularly faculties, believing that English faculty ought to be talking to secondary English teachers about what the expectations were for English. The same is true for math and the other subjects. We also discussed communication between counselors and college admissions officers to help them in articulation about expected requirements for entrance into higher education. Last, there is the communication between the schools and students and their parents. The last of the nine recommendations dealt with establishing an ongoing advisory council for college preparatory education that would oversee the implementation of the original articulation report. That committee has been working since September 1981.

The report came out that spring. Not much happened right away. As many of you know, when things are sent out to school districts in the spring, they sometimes get shelved over the summer, and people say in the fall, "What articulation report?" However, the President of Kent State University happened to be a member of the Commission and was very strongly committed to the implementation of the unconditional admissions requirement. Because Ohio universities must give school districts two years notice of any change, in September a letter came from the President of Kent State University saying that as of the fall of 1985, all students entering Kent must have four years of English, three years of math, and so forth.

Needless to say, there was a quite a scramble among our school districts because all of a sudden what had been perceived as just another report had now become a reality. Because Kent State had taken the leadership, the eleven other state institutions began to realize that they, too, would have to take a look at some form of unconditional admissions re-

quirements. So, in the last three years, we have had all of our state universities implement some combination of these course requirements for unconditional admissions. The last university came on board in September.

The course content outlines have been delivered to all of our school districts; our teachers are working with them as they write their courses of study, which are now mandated by our minimum standards. We are finding that courses such as second-year algebra; the second, third, and fourth year of foreign languages; and the second and third year of science are in fact filling up much more than they had been earlier.

Ohio State University has done a study over the last two years of their remedial course students, and has recognized that, at the beginning of their study many of the students were in remedial work because they had not taken the courses, not that they had taken them and then could not pass the test for placement. Now the university is finding, even as the numbers go down, that, indeed, some of the entering students are still having trouble, and the courses are still there for the students who need them.

We are revising our teacher certification requirements. At this point, still in draft is the recommendation that teachers be allowed to take undergraduate content courses as a part of their recertification. This is becoming more important in Ohio because of decline in enrollment. Some of our teachers who have been teaching biology, for example, over the last few years are now being asked to pick up a course in chemistry or physics. They have not had those courses for a while, and now are able to go back and still get credit for recertification. So we are very anxious to have that remain in the draft and in the final format.

To reach our counselors, we developed a counselor brochure, which gave the information from the commission's report and also six-month updates of what each of the universities had put in as their unconditional requirements. This allowed our counselors to get their information out to their students as well as to the parents on what each of the universities would be requiring. As I say, the enrollments in some of our upper classes have more than significantly increased, and we are really convinced that it has to do with this report.

The last part of our communication was a parent brochure that we got out to all of the

parents of eighth-grade students. It identified for them what students ought to be taking in high school in order to prepare them best for entrance into college. That was delivered through the counselors and the principals in each of the junior high and middle schools across Ohio.

At the same time that all of this was going on, the legislature funded a project for the Board of Regents called the Early Math Placement Test Program. The Early Math Placement Test is given to all juniors. It is the Ohio State Math Entrance Test. Juniors are then given their scores and told where they would fall in the hierarchy of math courses in the freshman year at Ohio State. If they come at the remedial level or the low level, they are then encouraged by their counselors and teachers to take a senior math course. This has happened concurrently with the recommendations. We believe that the decrease in remediation needs in mathematics has come as a result of these juniors taking the recommendation to enroll in a senior course.

We are now looking at an English early placement test and a science test to help students make some good decisions about their senior course work. At the time the information on the Mellon grant was received, we were puzzled as to how we might best apply for the funds, recognizing that we had already brought higher education and secondary education together, and communicated through the universities and through our school districts the requirements for unconditional admissions. Perhaps we did not have a component left with which to deal.

As we drove to Cleveland one day, Dr. Walter and I talked about it and realized that probably the weakest component of our thrust in Ohio was that of parent communication. So we wrote our grant a little differently than some of you. We actually developed a project that would go out to the parents of our high school students, grades eight through eleven, to talk to them about their role in helping their children study and make good decisions, as well as just some general good parenting skills that we believe would be helpful for both parents and students.

The counselors were trained on the two brochures. We worked with college admissions officers on their role in our meetings, and we held eighty-four meetings across the state. I must admit that probably the one negative

response was "How can the state department get parents involved?" That's a very good question because obviously we cannot do it without the school districts. But we were able to get invitations out to over 400,000 parents through the grant and through the school districts. Our audience was about 10,000 parents, plus school people who were at the meetings. We developed a film on parenting, which is available for review, called *For Parents Only*. It talks very specifically about things parents can do at home, and things parents ought to be doing with the school, to better enable their children to make good decisions about higher education.

The brochures that we have developed are also available to you. One is on making decisions and recommends what parents can do to help their children examine not only higher education decisions, but also decisions on careers, course selection, and so on. The second one is *Parents, Partners and Study Skills*, and it discusses what the environment ought to be at home, how to determine what conditions are best for their children to study in, as well as different ideas on nutrition, time, and sleep—some of the common things that we all know about, but that sometimes parents forget.

We have had tremendously good feedback on all of the materials, so much so that we have used the remainder of the funds to reproduce and reprint them. Our counselors are using them with the incoming eighth-grade groups each year and having their own meetings at the school district level. Our meeting format is very simple. It is about two hours in length. We show the film after introductions. A higher education representative is there to talk to parents in general about how students ought to be prepared when they enter college, such as being able to study, make decisions, and be self-sufficient. We then divide parents into small groups. The counselors take parents through the two brochures—how to use them, and how to implement them at home. Then we have a general discussion over coffee.

We are very excited that as a result of this project we had the impetus to go to the state board with the thought that the family and the parent are very important in the education of their children. Therefore, the state board has this year proclaimed 1985-86 as the "Year of Family Involvement in Education" in Ohio. We have had a theme since 1980 when we began with the "Year of the Schools." We really be-

lieve that this year parents are very important in the education of their children. Therefore, the partnership between home and school and the extended family, not just the parents, will again provide us with some very good activity at the local level to bring the home and school closer together. We have strands within this theme, and they will be given to the districts for local activities. Their involvement at the conference at the end of the year leads to a certificate which, interestingly enough, the districts are very anxious to display. It means that the state board has recognized parents as being part of this celebration.

The other thing that has happened as a result of this was that many parents said to us in the evaluation that they would have liked to have had the information, particularly on study skills, earlier. Therefore, we are now developing a film and re-doing the materials for parents of students in the elementary K-6. We shall be going out next year with those materials as a follow-up to the secondary program.

We really appreciate the fact that the Mellon Foundation has supported this activity. We know that our schools and our parents are closer because of it, and we believe that our students are making better decisions about higher education. Thank you.

DR. WALTER: Thank you very much, Dr. Bandy. Our second case study or description of the Mellon grant comes from the state of Rhode Island and is presented by Edward Dambruch, Director of the Basic Education Unit in the Rhode Island Department of Education. I ask you to join me in welcoming Edward Dambruch.

MR. DAMBRUCH: Thank you. I am pleased to be here. I will tell the secrets. We had lunch together and we decided who was going to go first. Now I wish I had gone first, because many of the background issues and concerns that Irene shared with you, not surprisingly, were also existing in Rhode Island. I would like to provide you with a little background, in terms of what led to our project or our need for this project, and share with you some of the ways in which we have used the resources and some of the outcomes.

Three things, or three phenomena, were existing at the time our project began. With regard to higher education and the public high school—and the private high school as

well—we had a “we/they” situation, a case of expectations that were not communicated, and a case of perceptions that were not verified. Thrown into this mix were the concerns of policymakers and legislators regarding the state of education. I speak from some experience, because, uniquely in Rhode Island, I served in the state legislature, and now am a member of the department of education.

I know that legislators tend to react when they perceive that those primarily responsible for the issue—whether it be transportation, health, or education—are not reacting. They tend to react hastily because they are elected every two years. We recognized an emerging concern about we/they expectations and the accountability question: what is happening with our high school graduates as they get into higher education?

I mentioned the we/they situation. We had to bring these two groups together. We also had the problem of expectations not communicated. The kindergarten teacher expects that the child will come with certain social skills, physical skills, and so forth. The second grade teacher expects that the first grade teacher has taught the kids how to read. We had a concern in Rhode Island in terms of coordination in grades K-12, never mind between postsecondary and high schools. This gave rise to the idea of a coordination of curriculum in the districts.

Then we had the problem of perceptions not verified. In the high schools we had the feeling that colleges do not care. They do not want to share their resources or communicate with us; yet they want to criticize. And there was the perception on the part of higher education in many cases that high school teachers were poorly prepared, thence were not preparing the students well, and really had no sensitivity to what the students needed as they began to enter the postsecondary career. That is the background in our particular state.

So we had to address the communications problem. That had to be the first step in any intervention that was going to improve the situation and better prepare high school students as they entered postsecondary education.

The opportunity to apply for the Mellon grant was beneficial to us for a couple of reasons. I think we may have addressed the problem anyway, but a foundation grant helps to objectify the issue. Secondly, if a proposal has

to be developed, people have to sit down and articulate the problem. That gets them thinking and moving towards a solution, as they begin to share the problem with the we/they—higher education sitting down with the state department of education and teachers and administrators within the state. So it was a good opportunity for us to begin to define the problem concisely and to map out some attempts at solutions.

Let me tell you a little bit about Rhode Island. The size of the state sometimes suggests that we can do things that would be impossible for other states. From any place in the state, you can be anywhere else in thirty minutes. You could be at the state department of education and visit any district, or several, in any one day. Also, there are forty school districts in our small state. Sometimes that compounds the problem, but that is the situation we face. We have a small state and a relatively large number of school districts, but a good network to take care of them. Sometimes it is too good. Sometimes you say something in one part of the state, and, before you get back to your office, it has reached the other part of the state, because everybody in Rhode Island seems to be related to everyone else. So one has to be very careful what one says. That is the context within which we work.

Our first step was to bring the two groups together. Now that may sound strange. We were dealing, by the way, with the public institutions of higher education: the University of Rhode Island, Rhode Island College, and the Community College of Rhode Island. We brought them together with the high school teachers. Someone might say we needed a grant to do that. I guess we did, not so much for the resources, but to build the structure.

That provided the opportunity for catharsis. When you have a we/they situation, you have to have an initial catharsis. Everybody has to dump their concerns, and everybody feels better. Eventually in the course of that conference, we identified themes, and issues emerged with less anxiety. We got over the "it-is-your-fault, it-is-not-my-fault" symptoms. So from that conference there resulted some communication between the parties. High school department heads in the major areas of the curriculum—math, science, social sciences, foreign languages and English—were able to sit down with the department chairs and teachers and discuss their expectations.

As in Ohio, we in Rhode Island had a high degree of concern that remedial programs were cropping up at the higher education institutions in alarming proportions. Placement tests taken by incoming freshmen indicated that a high number needed remedial courses. We addressed that concern at this conference and asked, "Where do we go next?" Too often in these projects, there is a one-day conference where everybody dumps their concerns, and nothing is ever picked up again. But this particular conference provided individuals with the hope that their present efforts would receive follow-up.

There were many people concerned, and I will not go into detail, but, as in Ohio, we had an Articulation Committee. Our Board of Regents, which governs elementary and secondary education, our Commissioner, our Board of Governors, and our Commissioner of Higher Education were involved and working on this issue. So from that conference we had an opportunity to develop a road map in terms of communications and which next steps could be accomplished.

We had to choose groups carefully. In Rhode Island, we have two unions, the American Federation of Teachers (AFT) and the National Education Association (NEA), and unions in Rhode Island outside of education, indeed in education, are very strong. The president of Rhode Island AFT is also president of the Rhode Island AFL-CIO. Rhode Island is a labor-oriented state, and it is in a powerful position to tie education into the whole labor scene, and into the whole general government scene. We have always gone with those groups in the past. This time we did not.

We went to the professional groups in the state—the Council of English Teachers, the Council of Math Teachers, and so forth. These are very low key groups, often looking for an agenda, often not meeting in the course of a year. But the value is, they cut across districts; they cut across professional organizations; and they are representative of both elementary and secondary education and higher education. So we used those groups to begin to work on the issue as they related to each of the disciplines.

The first attempt to bring about communications was to establish a feedback system. The grant provided us with the resources to furnish every high school a performance report on their graduates as they completed

their freshman year in the three state institutions and in the five disciplines I mentioned. The type of information on the printouts was determined by a planning group representative of the interested parties. For example, the high school people said, "It would be meaningless to us if we don't know what they did in high school." So we gave them the SAT scores and class rank, within a range, that each person brought to the college—there was some concern about personal identification, so we used these ranges—and each person's record in chemistry, physics, mathematics, foreign languages, social sciences, and English at the college level freshman year. That record was also compared to the achievement of all freshmen, of all people taking the courses, and so forth. So the information was in various contexts that made it more meaningful. Again, this is common sense; it is probably done a lot. It had never been done to this extent in Rhode Island. We had always had an informal relationship, maybe between the adjacent district and the college, in terms of sharing some information, but now it became formalized.

The colleges have agreed to continue their support on a yearly basis. As we look at expectations, it is skills that colleges want the kids to have, and that is going to require a look at the curriculum. We have some data that may allow us to reflect on the quality of the curriculum in the different areas. So that feedback system was valuable.

Another value again is communications. We did not just deliver the printouts. We had a series of workshops that brought college people together with high school people to explain the format, the data, and the impact of the data. One of the unique things about Rhode Island, small as it is, is that everybody wants regional workshops. Everything is relative in Rhode Island, you know. You can get anywhere in thirty minutes, but no one wants to travel more than ten. So we had four regional workshops to keep us busy in the State Department of Education. We began to develop some partnerships, some relationships.

A couple of high schools took the teachers on a released-time day to the college. They met with the English faculty and the social science faculty. They also met with their own kids who were now attending the college. They got feedback from the kids on how well they

were or were not prepared. Again, the dialogue on communications began to emerge.

In summary, the curriculum groups have been working and continue to work. They have focused on the issues that emerged from that initial conference where we had the catharsis. They have begun to work on science: biology; math, and the organization of the math program; the sequence of courses; and so forth. All of the issues that came up are beginning to be addressed, patiently. There is no attempt to do it in a one-time deal, but with the expectation that it will continue, thus giving these organizations new life, new meaning, and a new sense of communication. This sounds idealistic, and will have some restrictions, but it is a start. There is a new sense of communication, which we formerly lacked. We will keep those wolves, the legislators and the policymakers, away from the door when they see that something is being done, some attempt being made, to address the problems. As Mr. [Albert] Shanker [President, American Federation of Teachers] said today, "Just don't talk about the problem, make some attempt to address it." We thank the leadership of the Chiefs and the Mellon Foundation for this opportunity, this catalyst, to help us to address a problem which we knew existed, but about which we did too little. Thank you very much.

DR. WALTER: Thank you, Mr. Dambruch. We appreciate the presentation on your state, and I can't imagine being able to cross the state in thirty minutes. When I think about Ohio, then about Texas, I realize how easy it is to cross Ohio. But regional meetings only ten minutes apart would be heaven for us in Ohio, where we drive three or four hours to hold them.

Our third presentation focuses on the relationship between secondary vocational and technical education. I think it shows yet another example of a state addressing a linkage in an interesting way. It is my privilege to introduce Everett Harris, who is going to make the presentation for Vermont. Mr. Harris is an extension associate professor of the Department of Vocational Education and Technology at the University of Vermont.

DR. HARRIS: Thank you. In the Vermont Mellon Project, the concept of collaboration is being utilized to solve a different type of problem. I was not involved originally in the plan-

ning process that resulted in the request for money through the Mellon Foundation. A person by the name of Elizabeth Rocklin was responsible for that part. I came into the project after the grant was awarded, which was a little over a year ago.

Let me share with you something about the problem we tried to address with this project. Basically it ties back to the fact that Vermont's secondary vocational students frequently lack the adequate preparation and desire to continue postsecondary technical training. In a paper that I pulled together to share with you, I cite one example. We examined some preliminary data on our 'eighty-three graduates and found that less than twenty percent went on to further education within a year after completing the program.

There was a real need to address this problem from several perspectives. There was a perception that vocational education was not really responding to the new demands in the marketplace. Programs were not being responsive enough, and we really needed to address the technical component of vocational training. So our question basically was "How can we go about expanding or making available real options in postsecondary technical education for our secondary people?"

We proposed, designed, and implemented a program that addresses a secondary vocational through postsecondary technical three-to-five year continuum. The project was jointly planned and coordinated with the Department of Education and the Vermont State Colleges Board staff people.

I suppose we ought to describe the context of vocational education in our state. We are a little larger than Rhode Island. Anyway, we have a population of a little less than 550,000, although the natives would dispute that during the tourist season. We have sixteen vocational centers in the state; fourteen are attached to existing high school structures. They were built jointly, actually. We have two of them that are free-standing. They are principally oriented towards secondary students. All the high schools are designated conduit schools into one or more of these centers. We have our postsecondary colleges and institutions with associate or certificate programs—about seven are private. We have the state colleges board which operates four campuses in sort of a traditional sense. Plus, we have a community college concept that is a school

without walls; they make arrangements for facilities. Then we have the University of Vermont, which speaks only to God.

Our major premise as we went into this was that the secondary vocational education had to be recognized as an important component in preparing students for postsecondary technical education. Otherwise, there would be no progress. We tried to look at curriculum, both the technical and the academic curriculum, and ways in which we could do some collaborative activities to improve the academic and technical skills of students.

And third, we have identified some collaborative activities to occur between the local vocational center and higher education institution. Our expectations were, for example, that we would have three to five vocational centers that would be interested. It did not turn out that way. We had six that quite vehemently expressed their interest in becoming involved. In other words, we had much more interest in the project than we anticipated.

We ought to talk some about expectations and the sorts of things that came out of those conversations. We had expected to focus a considerable amount of attention on examining the technical curricula—the academic part of it, basically math and science skills that students need to enter to complete a secondary technical associate or certificate program. We found that we had to spend a lot more time on the access part initially than we did on adjusting the technical and academic curricula. In other words, we had to get people to work together and reach some agreements that would help kids move from secondary to postsecondary and recognize that secondary vocational education had a role.

We basically used the collaborative process to do that. The access issue was addressed through articulating—getting the secondary people and postsecondary people together to do some articulating among themselves and to look at scope and sequence between what goes on at the secondary level and what goes on at the postsecondary level. Those meetings became very interesting because, obviously, secondary people had a lot of ownership in their program content. Postsecondary people had a lot of ownership in their content. It was clear as we sat there listening to these people that there was a lot of overlap, but it was hard for the individuals to see that.

Fortunately, guidance counselors were

among the groups of people that we asked to the initial meetings between secondary and postsecondary people. We invited guidance counselors because they ask good questions, particularly since they realized they would have to explain the changes to the students they counsel and to the students' parents.

Their questions really helped keep people on task. I recall the first meeting we had between faculty and administrators from VTC—Vermont Technical College, a two-year technical school—and those from a vocational center. After about four hours of everybody explaining what wonderful content each was teaching and at what different levels from the others, the guidance person said, "What we need to know is how does the admissions requirement for a student who completes a vocational program differ from that of a student who doesn't have a vocational program. The end result is it does not. Each student needs so much English, so much math, so much science, and a certain minimum SAT score. Then why are we meeting?" That occurred in the middle of the afternoon about thirty minutes before we were to leave. At that point, everyone sat down and went to work. We have had some really good sessions since then.

What was the outcome? The Mellon Project has had a fair amount of impetus on the interest in the concept of secondary/postsecondary linkages or collaboration activities. Two other projects are related to some extent to our Mellon grant. One is called Principles of Technology. Some of you no doubt are involved with that project. It is basically an applied way of teaching math and science skills, with a focus on technological devices. The principles associated with many technological devices—fluidics, hydraulics, electronics—are part of that. We have two centers that tested that system this year. We have two other centers that want to get involved in the coming fiscal year 1986.

Another project was anticipated by few of us. We had one school come up with their own collaborative-type activity called Prep Tech, which is a carbon copy of what we proposed to do with the Mellon grant. We have been able to work together on that, and they're doing some things in collaboration with this project. In other words, we are mutually supportive. So what started out as The Springboard Project funded by Mellon money, ends up with three projects that now are focussing on sec-

ondary/postsecondary linkages, to try to expand options for secondary vocational students.

And so the springboard is utilized in two senses: first, to launch the Mellon grant, and second, to launch the whole concept of helping secondary students enter the postsecondary level. Half of our sixteen centers have some sort of activity that is either going on now, or will be going on during this fiscal year 1986. We have also been involving two or three of our colleges or private schools and one LPN [licensed practical nurse] program.

I think the Mellon grant has allowed us to focus on the process of collaboration more than we would have done otherwise. We would have done it, but the grant allowed us to make it a higher priority. The interest is certainly there to continue collaboration.

DR. WALTER: Thank you very much, Everett. We appreciate that presentation. I am going to ask Steve Kaagan [Vermont Commissioner of Education] to respond to these projects from the viewpoint of the Department of Education in Vermont. Steve is never at a loss for a response, and he asked especially for this privilege.

DR. KAAGAN: I will respond very briefly to all three speakers, not from the point of view of the Vermont Department of Education, but perhaps from my own point of view, just to get some discussion going amongst the participants here.

As the speakers were outlining their programs several operating principles occurred to me. In fact, I outlined about eight of them, which I shall quickly tick off.

As you listen, I ask you to think about them in relation not only to the programs that were talked about here, but also to the improvement of teacher training programs between higher education and elementary and secondary education, because I think the learning here applies across a broad span of possibilities.

One of the things that struck me overall is that there is a great deal of power and usefulness in a "project mentality"—the sense of trying to define a set of fairly narrow objectives or to eliminate some identifiable ills and to bring a group of people together in a project team to accomplish that. That certainly was common here, and it may be very impor-

tant and applicable in improving teacher training programs, particularly since the ramifications of those programs cut across a number of areas.

The first principle has to do with the power of a little bit of money, not a lot, but a little bit of money. I've often thought that if I were a philanthropist, I would much rather be in charge of a small grants program rather than a large grants program. I have a feeling that in our business there is often much more power in a little bit of money rather than a lot of money when it comes to curing some of the ills that confront us.

Second, it is clear that specific objectives were identified, even if the objective was to eliminate fairly concrete ills, like the expansion of remedial programs in the early years of higher education. A great deal of concern exists about that across the country.

Third is the power of communication, the power that now exists in communication amongst entities where there previously had been little. Common sense would dictate that there should be a lot. It is fascinating, really, for any outsider listening to people like us *struggling* with the issue of cooperation between elementary and secondary and higher education. I think there would be some shaking of heads and wondering *why*.

Fourth is the ever present power of feedback, of data. A number of people spoke about this—the little bits of data, but very profound when used well.

Fifth is the inevitable power of efforts that see clients as whole people across the boundaries of institutions. This is perhaps a too simple one, but it strikes me every time issues like this come up, and I think it applies very much to teacher training. It is amazing what we can do if we see a high school student as somebody who eventually will be a college student and not somebody who is somehow bifurcated between the two institutions. One of our great failures is that we often do the latter, not the former. There is potential power in seeing clients as whole people.

Sixth, I would argue for—I think at least two people up here did the same thing—the power of parents as constituents. With all of the talk about the distractive effect of two-working-parents families, there is, nonetheless, enormous potential in reaching out to parental concern about the education of their children. What [Ernest] Boyer [President, Car-

negie Foundation for the Advancement of Teaching] said earlier is fair warning that there is a great need for talking to parents about the education of their children, in spite of all that we have heard about the distractions confronting those parents.

Seventh—this one is a bit subtle, but it needs a lot of work—is the lynchpin role of school counselors, particularly if we are serious about improving teacher training programs and want bright high school youngsters to be more interested in potential teaching careers. Counselors are much maligned, maybe rightfully so, but it does not matter. They play a *crucial* role in that area of transition between high school and postsecondary education.

Finally, eighth: whatever one does in educational reform, it seems that there is a central nexus in the relationship between high school and postsecondary institutions. Obviously, that applies very much to improving teacher training programs. An example would be the absolute *uselessness* of raising standards at the high school level without concomitant action by higher education. That is an important lesson we learned by exemplification through these various projects.

So I offer for future discussion some of the principles that grow out of these projects and also some thoughts concerning the reform of teacher education.

DR. WALTER: Thank you very much, Steve. Now we are ready for questions and discussion from the floor. They need not be limited to the scope of these projects, but also can relate to the overall linkages between elementary/secondary education and higher education, particularly as we think about the broad theme that we are discussing here together. That is, as Steve said so succinctly, we should focus upon the whole client, the young person moving through our system, the process of developing those characteristics that enable him or her to be a productive citizen in a very complex world.

Steve, your points were right on target regarding the broad picture of what we can do through those linkages and with a little bit of money, because we in education are used to working with little bits of money to bring about change. As Albert Shanker said this morning, if we talk about generating \$100 billion, we will have a little trouble, but if we talk about using better what we have, we would get

along much better. There is a lot of truth in those kinds of observations.

ROBERT D. BENTON (Superintendent of Public Instruction, Iowa): Ed, I am aware that several years ago your state commissioner of education had both secondary and postsecondary responsibilities which were then divided between separate boards. I am interested and struck by the oddity of a new structure, a new mechanism, within your state to try to bring together elementary, secondary and postsecondary education. Did you have true communication between the two levels before the split?

MR. DAMBRUCH: We had separate boards in the late 1960s and then went to a single Board of Regents for elementary and postsecondary education. Even though we had one board, I do not think communications ever reached the level of expectation that was hoped for. I think the board had advocates for elementary and secondary, and advocates for postsecondary, and they were beginning to compete for resources for the two separate institutions. That is where the effort and energies went, as I viewed it, rather than "Here, we have a single governance body, what a natural for articulation and planning and communication."

I do not think it happened at that point. Politically, I think it was the resource issue and the identity issue that laid the foundation to pull them apart again. We want to go before the legislature as the Board of Higher Education for higher education, and so forth. I don't think the two boards together solved the problem. Now we are communicating as institutions under those boards, meaning elementary and secondary education as school districts and as professionals there, and higher education as institutions, as members, rather than through a board. The boards are involved, though, with regulations on articulation, graduation requirements, and so forth.

BARBARA NEWELL (Chancellor, State University System of Florida): Dr. Bandy, as you developed your materials, did you look at the particular problems of single-parent families?

DR. BANDY: In this particular project we specifically did not do that, although we have been working on that for several years in Ohio. We know that our population is great, since we

have eight major cities, and we know that the problem of the single-parent families are evident there. In this year of family involvement, we do have strands that we will be developing, including the external and internal forces on the family, one of those being the single parent, as well as socio-economic issues like drugs, alcohol, and so forth. But for the two brochures we talked in general. In our film we do show single parents; we show both a single father and a single mother with their children in the various aspects of the film.

RUTH RANDALL (Commissioner of Education, Minnesota): Your project on parent involvement sounds great. Could you elaborate on what you have done so that, after this project is over, and there is no project pressure or heavy meetings, it will have been internalized with project leaders and counselors?

DR. BANDY: The meetings that we held prior to the parent meetings were with principals and counselors. We invited them to come into a regional full-day session, where we worked with them on some of the parenting concepts that we developed as we produced our materials, and shared with them how they can continue the project without us.

They are able to reproduce the brochures if they wish, or adjust them to their own local constituencies. Our hope is that counselors will continue the parent concept through the K-12 written guidance program, which is required by our standards. One of our nine dimensions of guidance—I am sure most of you have heard of those, because they have been around since 1971—is a parent services component. In the written guidance program, they are to have some aspect of each of the nine dimensions. So we believe that through the standards, as well as through the project training sessions, we have internalized the continuation of the project goals.

DR. WALTER: I would like to say that we have attempted to demonstrate the valuable role the Mellon Foundation has played, beginning with the Summer Institute in 1981, as we develop the kinds of linkages necessary to strengthen the relationship between our postsecondary education and elementary and secondary education, and help young people in their educational process. We are pleased to make these presentations to you, and we encourage any additional comments.

CAN COLLABORATION ADVANCE TEACHER EDUCATION?

P. Michael Timpane
President
Teachers College
Columbia University

My topic is, "Can collaboration advance teacher education?" After devoting two years to several projects trying to demonstrate this is so (and spending three days with advocates of collaboration here), my answer must be "yes." Indeed, it is "yes," because it is an imperative of the moment. This is really the answer to the rhetorical question: it must at this moment. At the most general level, the argument is as follows: better teacher education is fundamentally necessary to carry out the hoped-for reforms and improvements in education that are so much before us, that we are so much promoting and advancing these days; and better teacher education, however it may come to be defined, must be linked fundamentally and thoroughly every step of the way to the other components of the reform, or else it will serve neither the reform nor itself.

This is the case for three general reasons. The first is the obvious programmatic reason that forty-nine states have raised or changed teacher preparation or certification requirements in the last year or two, thereby affecting us directly, and forty-four states have put in new professional development programs. So, programmatically, teacher education is a key component in the reform. We also know—and I think this is important—we are a source of knowledge to that reform. Whatever our strengths and weaknesses, our capacities or lack thereof, you will not find many people anywhere else in the firmament who have tried to study education systematically and build a knowledge base about it. For the most part, a good deal of the knowledge and insight that one seeks is resident somewhere or other in our precincts.

From our point of view, the linkage is also necessary politically, because we are dependent on the other actors in the reform. It should come as no surprise to you to know that the universe of teacher education is not a highly powerful, independent political force in your state. Just as we are necessary players in the reform, we need your assistance, if we

are to play that role. Finally, collaboration is necessary because it is part of one of the opportunities that comes out of this reform, the opportunity to think again and think hard about the roles of schools of education and teacher preparation in the development of the education systems of the states in our nation. That will be evident to you, I presume, from what Judy Lanier, Peter Magrath, and others have already said to you, and certainly will be in what John Goodlad will yet say to you, and, I hope, in what I say as well.

There are many specific examples of how teacher education and elementary and secondary education are mutually dependent. One that sticks in my mind is the question of standards. One of the key things that you are trying to do to us, and that we must also do to ourselves, is to set higher standards in the preparation of teachers. To put it in the vernacular, we are "hung out to dry" if those standards are not consistent with the standards of hiring officers or personnel officers in the local districts. We cannot have an objective that is not close to the objective that they are going to seek.

To be more specific for you, I shall illustrate these general points in three ways. First is a quick review of the larger policy framework in which this issue sits, and the ways in which that framework promotes mutual interests in collaboration. Second is a sketch of what is happening at one school, Teachers College, not so much to tell you what is going on there, as to give you the perspective of someone trying to run a school of education: how these opportunities present themselves and what the problems and challenges seem to be. Third is a suggestion on the next key steps that we might take in building practical varieties of collaboration.

The Policy Framework Surrounding Collaboration

As to the policy framework, it has been told to you before that the way that we have been

presented an entirely new policy agenda in the area of teaching in the past two years has been quite simply remarkable. It started with the recent reports that seemed at first to be only widespread criticisms of teaching as a profession. But in a curious way, they were also an absolution, because just as we were accused of being part of the problem, we were also assumed to be part of the solution. That may seem obvious to us, but let me remind you it was not always the assumption of policy-making in the previous years. We do not have to go too far back to find highly prescriptive management strategies, teacher-proof curricula, and the search for alternatives to the school, all of which were commentaries that the school and teachers were not necessarily part of the solution. It is important to recognize that however severe the recent criticism might have been, the critics did not abandon the profession, but rather came back to it as the necessary source of improvement.

Out of that, though, has come a deepening sense in the past two years of how profound the problem is. Once we decided that, after all, we are going to depend centrally on the teaching profession to do the job, the state in which we found the profession has seemed to us increasingly serious, as we reflected on how we are going to go about fixing it.

I like to quote from an imaginary want-ad that Linda Darling-Hammond created as the preface for her report, *Beyond the Commission Reports: The Coming Crisis in Teaching*. It goes as follows:

Wanted: college graduate with academic major, master's degree preferred. Excellent communication and leadership skills required. Challenging opportunity to serve 150 clients daily, developing up to five different products each day to meet their needs. This diversified job also allows employee to exercise typing, clerical, law enforcement, and social work skills between assignments and after hours. Adaptability helpful, since suppliers cannot always deliver goods and support services on time. Typical work week forty-seven hours. Special nature of work precludes fringe benefits such as lunch and coffee break, but work has many intrinsic rewards. Starting salary \$12,769 with a guarantee of \$24,000 after only fourteen years.

In a humorous way, the ad gathers together many threads about the status of the teaching profession—the problems that have weighed upon it serially, cumulatively, over the last ten to fifteen years, all of which need to be addressed together at this time if we are going to create a different situation. The job has become more difficult, the expectations higher, the pay lower in real terms, and the constraints on action greater. The incentives to professional performance are often lacking, and the preparation is sometimes inadequate. In that want-ad and other associated commentaries, there are at least a half dozen converging realities of what the act of teaching has become in our country, perhaps without our reflecting on it, over the past ten or fifteen years.

This has happened at the same time that another trend (probably not unrelated) has emerged: we are probably going to have to pay teachers what they are worth, for the first time in history. We no longer have either women or minorities who have nothing else that they can do by way of professional advancement, and therefore gravitate substantially into just a few professions, one of which was teaching. Thank God that they have many other opportunities which they are busy pursuing. They are not going to return to teaching in the same numbers, and certainly not with the same restraints on their own opportunities that they had before. So, at the same time that the situation has been worsening within the profession, the relative standing of the profession in the labor market has been declining.

We may have made teaching an unattractive profession for people considering entering it, precisely at the time when we need them most. This is certainly clear in the numbers of young people who currently intend to enter it—that number having plummeted from a quarter or more of the young people entering college fifteen years ago to barely five percent today—not nearly the replacement level that will be required in the next five years or so.

This is also evident in the test data that we have concerning the aptitude of those few who do choose to enter it. It certainly is evident in the gruesome retention data, which Phil Schlechty can tell you more about later in the week, in which we experience tremendous attrition, particularly among the more talented young teachers during the first few years of their active service in the classroom. And it is certainly evident in the poll data, which indi-

cate that most parents and most teachers would not recommend teaching as a professional opportunity to anyone or even to themselves if they had to do it over again.

This has been an unfolding story. The good news is that we decided that, after all, we must depend on teachers to improve our schools, and the bad news is that we might have farther to go than we originally thought to make that happen.

The response has been wide-ranging in the dimensions of pay, both beginning and over the course of time; in possible career structures and different patterns of advancement within teaching; and in increasing reliance on "effective schools" or "school improvement" strategies—which go by a variety of names, but all assume that the teachers should have more professional, collegial roles in developing and carrying out the educational program of the school. The reform has also included professional development policies, both preservice and inservice, and a whole host of quality control measures—test standards and certification requirements that have been imposed to build quality control into the system at various points along the way.

Thus, an unprecedentedly broad agenda is before us in the area of teaching. I do not need to tell politicians like yourselves that broad agendas are the best kind to have, because they sometimes let you make tradeoffs across issues that you cannot make when dealing with one issue. The opportunity for change, therefore, is in principle greater. For teacher education, only consistent action across the several dimensions is going to solve a problem which really arises from all those dimensions. No one policy or any one program is going to deal with the problem that has as many sources, as many roots, as the problem that I described.

This is true for professional development as a whole and teacher education in particular. We must respond in the terms of the reform. If we are thinking about how teacher education may be more collaboratively and effectively linked, it has to be a teacher education that is built on appropriate presumptions about what the pay and rewards of the profession will be; about what the career ladders or other career structures will be; about what the norms of practices of collegial behavior within the school will be; about what the expectations for continuing professional development over a career will be; and about what the standards

to be met at various stages in a career will be.

It goes without saying, since all those issues are developing quickly, that even if teacher education had been all you wanted it to be in the past (we will not go into the fact that this probably has not been the case), it must still respond to all these changes, and has barely begun to do so. I hope you are convinced that the profession has begun to do so and is more than willing to do so.

The amount of commission activity and dialogue and ferment that has grown up around how we must respond to the teacher education issue is unprecedented in my experience, but it is fair to say that it is a dialogue and a process that has just begun. It lags behind some of the other reforms themselves, because it is in important respects a consequence of those other reforms. The second point is that the reform movement and participation of teacher education in it build mutual interest in collaboration in many respects. At my college—which I will not try to portray as particularly a leader in this regard, but simply as an institution in the midst of this—we are being drawn into collaboration by these issues in a host of ways. Career structure, school improvement strategies, and all sorts of accountability programs, tests, and standards all draw us in. We are being drawn into all of those and being required and asked to participate; we don't even have to demonstrate much initiative.

Teachers College: A Case Study

Moreover, as we begin to glimpse what kinds of programs are going to be needed for the new varieties of teachers, we are impelled by our own programmatic requirements to seek collaboration. This is simply the nature of the future before us. Rather than be abstract about that, let me talk briefly about Teachers College as a case of an institution in the middle of this collaborative effort. I will give some examples of what we've been called upon to do—either by our own lights or by someone else, in the past few years—that begin to connect us to local educational enterprises in a very different and more profound way than we might have been before.

First, there is the level of action research. Today, we do different kinds of research than we were doing a decade ago. Much of what we do involves us very directly in developing ways that we can do research with teachers. We have been very much involved with the New York

City schools in trying to evaluate effective school and school improvement strategies. All are research enterprises that get us out into schools and classrooms in ways that we might not have been before.

In professional development, we are being called upon to participate in a great variety of activities; whether the Metropolitan School Study Council—a loose alliance of forty or fifty school districts, where we have been providing professional development for school district leadership for a generation, and which has had a great resurgence in the last couple of years—or working with one of Gordon Ambach's Boards of Cooperative Educational Services (BOCES) to put on a professional development program for the superintendents in southern Westchester County, or working with teacher centers in New York City, or developing the impact models of professional development. These are all activities that draw us on in program delivery.

In delivering our own instructional programs, we have developed entirely new configurations and changed their content. We deliver them in different times, places, and formats than we formerly did. We finally understand that offering courses at times and places at our convenience is not necessarily the appropriate way to be a school truly in the service of this profession, a profession that increasingly expects its members to garner advanced professional preparations, after and while they have full-time jobs rather than before. We now offer a half-dozen degree programs which can be taken largely in the summertime and in intensive weekend formats, sometimes with independent study components—configurations we simply were not thinking of doing five or ten years ago. We are asked to contemplate new ways to develop professional leadership and new ways to bring people into the profession. For example, we have established a program to provide advanced training to returning Peace Corps volunteers who will at the same time be math and science teachers in New York City in the next few years—a little piece of serendipity that will produce twenty or twenty-five experienced, highly-motivated science teachers in an area of desperate shortage in that city's schools.

We have developed an urban fellowship program, because we are being told from every side that varieties of teacher leadership that we have not seen before will emerge. We have had

marvelous success in training some independent school educators who are on the verge of assuming leadership positions. We hope to have a program like that for urban public school teachers as a companion program.

We have quintupled our continuing education offerings in the past three years, simply by deciding to do it. It turns out that the demand was there all the time. It did not take special measures or programs; in many respects it simply took us being more creative about when and how we carried out this activity and put it forth.

Finally, at the policy development level, through institutions like the New York City Partnership and the Alliance for the Public Schools, we have had more opportunity than in previous years to contribute to the policy development debate and to be of particular assistance, in consortium with other graduate schools of education, to the New York City schools.

Reading that litany, I do not have any idea whether it is more or less than in other places. My impression from talking with the other deans in schools of education is that almost all of them would have a similar list. It would be a list that has developed not exactly willy-nilly, but certainly in an ad hoc manner over the past two to four years, as many ways in which we can assist in the reform and improvement of teaching and education have come along. It is not so much an absence of opportunity that I sense. I worry more about capacity. In our honest moments, you could get all of us who run these schools of education to say, "We have many opportunities; we are trying to meet more of those opportunities than we have, but we are worried about capacity. This is a new chance for us to come into new collaborative arrangements with local school districts. We must do it well."

Areas for Collaborative Development

Third, we are approaching a stage where we need new policies and managerial structures to move this collaboration beyond its expanding, ad hoc character into some more formal manifestation that can carry it on over time and continue to broaden and deepen it. That is something I don't know how to accomplish from my perspective, just as you may not know how to accomplish it from yours, leading to the obvious conclusion that maybe we should get

together and develop a perspective that will carry matters forward. Let me sketch a few manageable and important areas that seem to be obvious places to begin this process, so that we do not try to construct an entire universe and fail in that process.

The first that I would point to is the induction process. It seems clear that we could do much more in the year or two before the initial appearance of a teacher in the classroom and the year or two after the initial appearance, and consider that as an induction process for the young teacher. Certainly, there is a great deal of unevenness and room for improvement in practice teaching and in clinical and internship arrangements that schools of education try to carry on in their programs. We have been expanding and improving those, yet they are by no means perfect.

One of the reasons they are not—and this is a point that John Goodlad can probably dwell on with you—is that there is not that much benefit in the current arrangement for the school district. They are doing a favor for the school of education, and they will help out up to a point. But there is a point beyond which they will not go, because the costs are too heavy, and the benefits too few. So, we need to think more broadly and develop a greater self-interest on the part of the school district in collaborative arrangements.

The second half of the problem is that most often the school of education's last contact with the teacher is the moment that he or she enters the classroom. Sometimes it seems that everybody's last contact with the teacher is the moment the teacher enters the classroom. And the two years after that entry are times of great trauma and disillusionment and tremendous attrition.

When you think about it, there is no other profession that treats their inductees that way. A doctor graduating from medical school is not handed a scalpel and a stethoscope and told, "It's your hospital. Go to it. This is your ward. Carry on." No young lawyer who has just spent three years in the dark, windowless recesses of a corporate law firm will say that he or she was a fully autonomous professional during that time. Every other profession that I can think of takes some care to induct the person who has finished formal professional training into full professional autonomy.

It is not a matter to which schools of education have attended; it is not a matter to which

local school districts have attended, either. It is a manageable issue; it is not a very expensive issue. It is an area which can bring us into very substantial collaboration. If we could find ways to remain in touch with our graduates for the first year or two, if they had the opportunity to reflect upon what was happening to them and then perhaps learn a bit more from it, and then return to it; and if we thought of that first year or two as "in and out of the professional experience" with reflection, with additional knowledge being purveyed as it becomes necessary, we could abate the attrition of new teachers. After all, to an important extent, it is true that you only learn teaching by doing it. Questions that would never otherwise occur to you will only occur when you are in that classroom. In principle, the first year or two should be a time for rich collaboration among schools of education, local school districts, and state agencies to make the young teacher more effective and, equally important, more likely to remain a teacher.

The second area that I would point to is really related, and it is one in which there is a great deal of activity already, though I think we may be ready to take it to a different level. That is the area of professional development. While there has been burgeoning activity in this area, it seems to me that we also left a great many loose ends. For example, I do not think professional development is carried on in many or most school districts in ways that are consistent with school improvement strategies. The imposition of someone else's agenda is more the perceived model of professional development.

Professional development is also not related to professional progress through career ladders, if that is what we are going to have, or through levels of professional licensure or other arrangements of the variety that Al Shanker has begun to talk about. Professional development, in short, is not connected to progress through the profession. It is also not connected to existing financial progress (this has always seemed to me one of the most glaring weaknesses) as well as it should be. It is not connected substantively to salary structure. If we want to think about where we make our largest expenditure in professional development, it is not in the budget item we call professional development, it is in the salary structure. The financial incentives we provide for people to get additional education produce

more professional development and demand more of teachers than all the rest of professional development put together.

I think it is fair to say that the amount of policy control exercised on that part of professional development is very slim. I hate to tell you this, but, if you wanted to have a dramatic impact on what we do, I can think of no more effective means than to place policy parameters on the professional development dollars that enable teachers to move up through the salary range. Professional development needs also to be related to concepts of continuous professional education. With all that I said about how much we have expanded continuing education at Teachers College, it remains very ad hoc. It is topical; it is not aggregative. Columbia's Teachers College is carrying on a special project for our NCATE review, in which we try to develop some models of continued professional education by following our graduates five or ten years and then interviewing them. We are developing models of what continuing education requirements should be after three years, five years, X years, and will then develop a pattern of continuing education (other than having people go to this or that workshop, depending on whether their district has three, four, or five hundred dollars to send them) to serve as a model of continuing education throughout the profession.

This is another very important illustration of the mutuality of our interests, because we can develop that model and make it work beautifully. If nobody out there thinks that the profession should have a continuous development component—that teachers should drive to work every morning listening to the latest journal articles on cassettes, much as doctors do now with the *New England Journal of Medicine*—then it does no good to develop a model of continuing professional education. But if we and the profession together develop that model, then it will be worth having.

Further, if all of this professional development is not consistent with the certification requirements in the states, then it will be less effective or not effective at all.

In closing, schools of education clearly have a great deal to reflect on in terms of improving their own performance. I do not say that by way of apology; we could all say that about ourselves. If you have heard nothing else this week—whether it was from Judy Lanier or Al Shanker or yet to come from John Goodlad,

Peter Magrath, or your project directors—it is that we are ready to move on these many fronts, but it must be with others. We are in that sense dependent institutions. Certainly, we must know and hold our own standards, but, in terms of integrating the system, it must be done with the collaboration and support of others. Thank you very much.

LYNN SIMONS (Superintendent of Public Instruction, Wyoming): In light of the responsibilities of a college faculty, what kinds of incentives have you built in to encourage the new models for professional development, or anything that requires the faculty going out and teaching evening classes, summertime classes, or travelling great distances?

DR. TIMPANE: Money and power are really our two basic tools. They are not ours to exercise, they are ours to hand out.

Let me illustrate this with something that I stumbled upon: the continuing education program at Teachers College sprouted as it did because I made each workshop a profit center. I let each faculty member who wanted to put on a workshop pay themselves something out of the workshop, but not as much as if they were teaching a course. I did not make them raise the money or get the money from central coffers—I simply asked them to submit a budget that, as a straight economic proposition, would break even or better.

I didn't do much except provide support services, so that the lights went on and the overhead projector was there. The program grew because it was incentive-driven, rather than otherwise. Also, if a faculty member came up to me (as someone did) and said, "I'd like to develop a new program for educational administrators," I would be inclined to pay him/her for a summer or ten or twenty percent extra during that academic year in which he or she developed such a program.

FRANKLIN WALTER (Superintendent of Public Instruction, Ohio): Have you done anything to encourage your professors to work directly with teachers in the classroom, in lieu of the usual tenure-track kind of thing that they have to do, to write and do research?

DR. TIMPANE: Some but not enough. That is a really big issue and a thorny one. One way to approach it is *research, teaching, service*. That is

the great triad, as you know. As people approach promotion and tenure, you have to give real weight to teaching and service, in addition to research, or you put the lie to the whole business. At the same time, the research component is indispensable. We have in institutions of higher education—particularly in my case in a research university—a particular role to carry out and it has to do with research. It has to do—and this is the tricky part in our relationship with you—with supporting the profession, but it also has to do with learning about and criticizing the profession. That is what universities do. That is their function in our society and that cannot be abandoned for teaching and service. It is a classical dilemma of professional schools. I think that it is fair to say that schools of education are nowhere near schools of law, business, medicine, and many others in integrating clinical and academic professorships. By seeking more balance in the mix of research, teaching, and service, you make a little progress with the professoriat you have. The larger problem is to figure out varieties of clinical professorships, where people have entirely new mixes of duties and are therefore judged differently in their progress. We have done too little of that.

CHARLES McDANIEL (State Superintendent of Schools, Georgia): One of the things we've been faced with in reform movements is reducing the number of courses. They say we have far too many insignificant things. Many of us are going about doing that, yet I hear you say that in the last two years the course offerings have been quintupled.

DR. TIMPANE: The easy answer to your question would be that is because our courses are not insignificant. The way I think about it—and this may be a commentary on what Saul Cooperman is doing in New Jersey—schools of education have no right in principle to be the sole source of professional educators. I happen to think that it is very important to our society that they be strong and primary providers of such and we do no service to the profession, in the long run, if we do not think of it that way. That is the important issue in the long run. The important issue in the short run is that we think of necessary alternatives while trying to reach that broad and happy upland, that we be clear on what our criteria are for someone we want to set loose in a

classroom, and that we be clear that, whatever those several criteria are, they are applied and met equally by whatever alternative systems we have. If those criteria are clear, we may well find courses that we do not need. We might well believe there are alternative ways to satisfy those criteria that will be complementary to the basic path of professional education, and which will get you through crises or over short term hurdles. What would be unacceptable for me is to have different criteria—saying that we are going to let in people who we really don't think meet the criteria for the educational equivalent of the Hippocratic oath, "Do no harm"—for whatever variety of political or financial reasons that seem necessary to us.

DR. McDANIEL: Has the increase in course offerings been in the number of fields you're now dealing with?

DR. TIMPANE: Oh, no, this is in continuing education; don't misunderstand me. These are institutes, workshops, and seminars that are over and above our regular course offerings. Our course offerings are really quite level. They are not growing or diminishing. In offering institutes, workshops, and seminars for people who are already active in the profession, we are doing five times as many of those as we were. They tend to be very topical, which is a great service. It will come as no surprise to you that our writing workshop draws hundreds of people, sometimes dozens from the same school district. Anything we do that has the word computer in it draws a full house in the continuing education context. It is those topical offerings of continuing professional education that I was referring to, not that we have five times as many students coming to campus.

DR. McDANIEL: Has Teachers College considered a five year program?

DR. TIMPANE: We became one about twenty years ago. We are entirely a graduate institution at this time. For us today, a five-year program takes the form of forging new relationships with undergraduate liberal arts colleges who have either reduced or eliminated their own undergraduate education offerings in the past ten or fifteen years. We are very excited about possibilities there. We have a program in place with Kenyon College in Ohio, for exam-

ple, in which the students—a very small number of students—spend three years with Kenyon, a year with us and a year back at Kenyon. They get their bachelor's from Kenyon and their master's from us simultaneously at the end of that fifth year. We are considering a program now with Spelman College, Georgia, which would be three years with Spelman, summer at Teachers College, and fourth year at Spelman, another summer and perhaps a fall at Teachers College, so that after four and one-half years, they will get a bachelor's from Spelman and a master's from us.

We believe there are a rich variety of such programs that we and many others ought to be experimenting with. It is very heartening to us to see the liberal arts colleges coming to us, saying that they have some students who are interested in entering education. I am very hopeful that we and many other institutions will have a rich variety of such arrangements with the liberal arts colleges. I am no authority on five-year programs within the same institutions.

SAUL COOPERMAN (Commissioner of Education, New Jersey): What ought the chiefs to be doing in terms of issues that have been glossed over? If you were a chief or Bill Bennett, what issues would you like to see addressed?

DR. TIMPANE: There are two. I shall commend to your attention a report that is coming out from the Committee on Economic Development (CED) in the next few months. It will be a blockbuster report in terms of business interest in education. It started out as a report on the traditional business interest in education; that is, what does education contribute to the economy, what job skills are needed, and therefore what should business's interest be? That is where it started, but it is not where it ended up.

It ended up in two other areas where the business community reached conclusions by analogy from its own practices. It came up with two unexpected conclusions. One has to do with examining the issue of the teaching profession as an industry-wide employment problem. It was interesting to hear Al Shanker and others tell them how the system ran and hear businessmen respond in essence, "Well, if we hired people that way, paid them that way, and treated them that way, we would have a

problem too." As employer to employer, they were able to approach the issue of the development of the profession at the broadest possible level. I don't think we have done that yet, although that is implied in the breadth of the issue. We are approaching the issue of rethinking the profession, root and branch. That is the first point that I would draw from that CED report.

The second point has to do with management of the schools. The CED, in essence, says, "We remember that you set up schools in the business-management model forty or fifty years ago. We remember helping you do that, how proud you were that you did it and that you were being 'businesslike.' But we forgot to tell you that the way schools run is not the way businesses run anymore." Modern management has an entirely different message about the decentralization of authority, about management by exception, about giving people clear goals and resources, and not fiddling and not inquiring too closely about the details of how they accomplished objectives, as long as they accomplish them. Translated in our terms, as school effectiveness or school improvement strategies, this is perhaps an even more fundamental development for us to reflect on, which could lead to wholly different ideas about the way schools are managed.

DR. WALTER: Clarify the second point.

DR. TIMPANE: You don't regulate the details of activity. You just set goals, give resources, and have clear accountability and clear rewards. The trade-off is more freedom within the local context to get the job done.

JOHN LAWSON (Commissioner of Education, Massachusetts): There seems to be general agreement that the role and expectations of teachers have changed radically, but when we discuss professional development programs, we don't involve practitioners. What can we do to bridge the gap between those teaching courses to teachers and the practitioners?

DR. TIMPANE: I heard a speaker say about a week ago that professionals make about a thousand autonomous decisions a day in a classroom—substantive decisions. I think we have to have that in mind, but still we need to have ways not to exclude practicing profes-

sionals from the school of education faculty at every level. Working that against the norms of tenure, which derive from principles of academic freedom and free inquiry, is a very difficult and tricky task, but one which I think we have to approach.

The second way, though, has to do with the structural issue that I raised at the end, revolving perhaps around these questions of induction or professional development. We need joint programs embracing both institutions. They simply do not exist at the moment. We have a treaty and trading relationship, but we are not one nation at the moment. I think in important ways we need to become one nation, and that union will require structural and policy changes because there are barriers on both sides that neither side is going to overcome easily. So, I would suggest that this is an area for persons like yourselves to be interested in.

And the third is thinking about this question of the nature of the profession and the role of the professional schools in that context. I think it is true that many parts of education do not know quite what to make of us or quite what to do with us. That is part of the perception you are talking about. A profession that has a professional school network that it doesn't know what to do with has not thought about some key matters in terms of its own self-definition. So, it is also a larger question of professional identity.

GORDON AMBACH (Commissioner of Education, New York): Mike, let me go to the point you made about half a minute ago. In fact, earlier in your comments, you noted the difficulty in going from the ad hoc arrangements to structural arrangements. You cited a whole series of different collaborative efforts, yet you just noted that you don't seem able to translate those into a nation of agreement. I wonder if you could comment about that. It may be better to have ad hoc activities, which are encouraged in different institutions, than it is for the several states to try to prescribe how to collaborate. That is really the structural question. Do we press it now, or let it go ad hoc, in the hopes that you may find some more interesting developments and models?

DR. TIMPANE: There is a lot to that observation, and, obviously, no clear cut answer to it. It would certainly be premature to put a rigid structure on developments. I would simply

urge you to be aware that there are limits on these ad hoc arrangements and be ready to step in from your perspective and provide the solutions where "ad hoc" does not do the job. This might constitute an intermediate strategy for the next few years, which amounts to deciding in your own ad hoc way how much structure is needed.

I think that there are ways in which, for example, a state agency could facilitate matters. If a state agency were to be able to have any impact, persuasive or otherwise, on how school districts administer salary arrangements, or if through the certification process, it had any influence on keeping standards relatively consistent across the various levels of professional progress from entry into a school of education through certification, then it could have a useful role. In all those ways, I think the state agencies could influence the professional progress of teachers, and certainly remove barriers that people feel are there.

A. CRAIG PHILLIPS (Superintendent of Public Instruction, North Carolina): I would like to take you back to Linda Darling-Hammond's want ad. Think about a little different language:

Work with 25 or fewer customers, with full-time help, with a wide array of tools with which to do the job (video, computers, books); special services available for those constituents or customers who have difficulty; an airy, colorful, well-equipped, air-conditioned workplace; \$16,000 beginning salary; fifty vacation days; two weeks available for staff development; three years of guided growth experience; and with good performance, the potential of \$45,000-50,000 salary.

Is it possible that the Linda Darling-Hammonds of the world could also add that ad to our projection, rather than the one that really implies negativism in the job? This kind of working situation is available in a lot of places, and is represented by many of the individuals in this room. I could take you to ten thousand of them, and there are that many more jobs coming.

Now the second question. Take the first part of the ad, and expand a little upon the de-

scription of that person and credentials. Ernie [Boyer] would have added "knowledgeable, able to communicate, and authentic," in the first part of it. Could you elaborate just a little bit more on that first part?

DR. TIMPANE: I can't imagine an answer that's more elaborate than that question, Craig. Let me answer it in two ways. First, would anybody answer that want ad? Yes, I think many would. Is there, therefore, a problem of either reality or perception that most people do not believe the implied want ad? It certainly is. It might be all perception or it might be all reality; it is probably quite a lot of both. I don't doubt that there are many people in this nation who will become good teachers, if they think it is a decent deal. I think we could only have driven the supply situation to the present abnormally low levels qualitatively and quantitatively, if a fair amount of what Linda Darling-Hammond's want ad says is perceived to be true, or in many school districts really is true. I don't believe any magic is required to bring perfectly good people back into the profession. I think nothing more than the real existence of the want ad you imply would do it.

DR. PHILLIPS: Would you expand that description of that individual if this want ad is available?

DR. TIMPANE: You always know the answers to your questions, Craig. You always try to get me to guess what the answer is. I think you are talking about what qualities of character and mind we want in addition to simple academic preparation. We are not simply being idealistic in doing that. We have professional and research-based grounds for understanding what kinds of behaviors enable teachers to be successful with kids in cognitive and behavioral realms. We would absolutely insist that most good teachers like children. Some teachers do not and, therefore, it is worth noting that dimension of affection for young human beings. We know that teachers' verbal skills are related to teachers' effectiveness, all other things being equal. We also have some idea that the recency of a teacher's exposure to formal educational experience has something to do with teacher effectiveness. We have those benchmarks that are very clear, and, between us, we should be able to develop much more specific

criteria to make operational in our selection and training process. It is not just academic preparation.

MS. SIMONS: You left a rather tantalizing path. I am curious about the various stages of teachers' career development, and what might be appropriate professional development courses, workshops, and so on. Can you give any illumination on that? What do your findings show?

DR. TIMPANE: This is one of those cases where we are really in the swim together. I don't know whether we are going to have career ladders or stages of licensure, whether we are going to have master teachers, mentor teachers, or teacher specializations—all of the above are probably some part of the answer. What seems clear is that we are going to have a great deal of differentiation in a function that until now we had thought of in one-dimensional terms—as walking into a classroom, managing it, and mostly lecturing to twenty-five or thirty kids. If you are not doing that, you are not called a teacher, you are called something else. It seems clear to me that we are entering a time of much greater differentiation of that function, and people must be trained for that differentiation. But I can't predict which one of those models will emerge. I think we must try in a general way to prepare people for that kind of responsibility, to educate the teachers to expect to be treated that way and to expect that kind of professional differentiation into newer and greater responsibilities.

MS. SIMONS: That really was not the essence of my question. When teachers progress through careers, they have different needs. Do your findings show this?

DR. TIMPANE: That is precisely the direction of my inquiry. I don't have the answers yet. We will be beginning the data collection this fall. Excuse me for misunderstanding your question.

GERALD N. TIROZZI (Commissioner of Education, Connecticut): We have a plan in Connecticut that speaks to the issue of recertification that has met with much opposition, but it is interesting. Much of the opposition deals with the fact that teachers keep telling us that

they are not going back to colleges and universities to participate in the same kind of courses that turned them off. We have developed statewide teacher institutes. We have 2,000 teachers in classes this summer for five or six hours a day, one- or two-week sessions. We are basically using teachers to teach teachers, and administrators to teach administrators. We have very few, if any, college level personnel involved. The fan mail on this particular program is outstanding. Statements are being made, "This is most worthwhile and progressive," and "Why wasn't this done years ago?" and so on.

I think it begs a very important question. To me it is a simplistic way to improve teacher education dramatically: use teachers much more extensively in the education of other teachers. Every time we come up with ideas for a planned program and look for collaboration, we run into road blocks. The colleges and universities tell us we are duplicating what they are trying to do in their schools of education. We talk about assigning full-time teachers for a year or two to a college or university to *assist* in the supervision of teachers who are in training. Yesterday, one of our speakers said that on the average, a supervisor is in a college or university for one to three times a semester. We are talking about some full-time comprehensive help. We run into a major problem, in terms of, "Well, if they come on our campus, they have to come into our bargaining unit, teach X number of classes a day, and so forth." It seems as though in this debate, or this discourse, on collaboration there are road blocks.

The other point I would like to make very simply: we have to learn how to use the teacher

as a practitioner in terms of educating other teachers.

DR. TIMPANE: Well, you have not made any mistakes yet, as far as I can tell from what you said. I think those are all entirely appropriate initiatives to take. We should be called upon to respond to that kind of challenge—to participate or to be reproached for our lack of participation. That is fair. On the other hand, I think you ought to be aware of its shortcomings as a long-term solution. There does in my judgment need to be a structure of professional preparation which is first class, and that we all like, rather than the series of substitutes for the long term.

DR. TIROZZI: Let me pick up on something Gordon Ambach was saying; I will say it a little differently. How do we institutionalize the "ad-hocracy," because the "ad-hocracy" seems to be working?

DR. TIMPANE: The implication of Gordon's question is, "Don't until you have to."

JERRY L. EVANS (Superintendent of Public Instruction, Idaho): Mike, I really hate to bring this very interesting discussion to a close, but part of my responsibility is to see that we stay reasonably close to the schedule. My thoughts as I listened to your presentation, "Can collaboration advance teacher education?," were, "Yes, Yes, we'd better do it well. And to do it well, we better do it together." So, thank you very much for a most interesting and challenging presentation.

THE CHANGING DEMOGRAPHICS OF THE TEACHING FORCE

Harold L. "Bud" Hodgkinson

Senior Fellow

American Council on Education

It is nice to see you all again. For some reason, maybe it's a death wish, I always enjoy talking to the chiefs. This is a most unusual and outstanding group.

When I try to look freshly at things or think creatively, my model is Buckminster Fuller. I once heard "Bucky" give a lecture in Illinois. He walked before an audience in an auditorium, and his first words were "What do you think this building weighs?" Most of us just don't think like that. I have always admired Bucky, because he could get people to look at things from new perspectives.

So let me start with a question to you. What's this group worth? If you think of fifty chiefs at \$50,000 per year—that's probably reasonable, not charitable—that's about \$2.5 million a year or \$208,000 per month (our weekly basis is fifty-two). Per day, you are collectively worth \$10,400. Again, Craig Phillips and others may want a special rate. For the hour and a half we are assembled, we are talking about \$2,000.

Federal Express is a client of mine. At Federal Express the clock in the lecture room does not have numerals to show the hours; it has dollar signs. It tells you the value of this group's time compared to what you think you are getting out of it. It is one of the most amazing motivators of speakers and audiences that I've ever seen. If I'm wasting your time and you're wasting mine, we've got a real investment in each other. That is, I could be doing something else and so could you. When you talk to your faculties, principals, and leaders in the system, and you think about what those people are drawing per hour, you get a sense of urgency that only dollar signs can provide.

All One System

I brought a copy of a new book that came out last Friday for each chief. It's called *All One System*. It proposes that we begin thinking about the whole educational system from kindergarten to graduate school as a single unit. I lectured earlier this year to sixty graduate

school deans, a formidable group indeed. My question to them at the cocktail hour afterward (which is when people speak truth) was: "Have any of your graduate students at some time in the past been through second grade?" They replied that their graduate students were born as graduate students. They started their lives when they entered the graduate programs. The thought that this is a continuation of what they get as a result of second grade is hard even for graduate school deans to grasp.

As I thought about your responsibilities as leaders who will develop new kinds of programs for training teachers in your states, I was reminded of the time I went to the National Institute of Education (NIE) as director and was seeking a leadership theorist who actually put in place what he said one ought to do. When I was dean of Bard College, I went to see Warren Dennis at Buffalo where he was provost. I left Bard because we were having a student riot and I wanted to get out of town. When I went to see Warren, he was having one too. Warren was trying to figure out what to do about it. He had written this wonderful book about leadership. His aide said "Warren, what you should do is very clear; it is in chapter three." And Warren said, "Yes, I know, but this is important." So, if you want to find the American who wrote about leadership and practiced superb planning, delegating, coordinating, and controlling, the best person I can think of is the "philosopher" John Dillinger who wrote little about the topic, but what he said was absolutely cogent. Any time you think you've got a tough job, you might want to trade your enterprise for his.

Strategic Planning

In planning for the future in a field like teacher education, we need to begin looking more systematically at the environment—using analytical skills. The chiefs are getting very good at systematically analyzing the issues, and this is very refreshing. It means you must keep one eye on your schools and your

state, and one eye on what's around—the environment, what's going on outside of the classroom. Every teacher needs to have a sense of that, too. We need the kinds of new strategies that are developing largely as the result of conferences like this one. I don't believe strategic planning is a gong word. It works not only for an issue like teacher supply and demand but also in manufacturing.

Strategic planning means that two objects meet in the future under control. I first learned about this when I was growing up in Minnesota, because in summer (which we defined as three weeks of "adhocracy"), there was nothing much to do. In my town there was an abundant supply of rats in the town dump. They were everywhere. For three-and-a-half weeks during the year, we got very good at throwing rocks at rats. We developed a skill. Nobody ever hit a rat by throwing a rock directly at the rat. That's why there are so many rats today. What you have to do is wait until the rat is in motion, lead the rat by three degrees, and then the rat walks into the rock. That's strategic planning.

It also explains how the Japanese can beat us \$2,000 per car in the manufacturing process. In Japan subcontractors must be located twenty miles or closer to the assembly line. Think what happens in Indiana, Ohio, or other states where subcontractors work for Detroit. Parts are assembled and then warehoused for up to four months before they are put on cars. The warehouse may have a leaky roof. And the roof may leak on your nice new generator, so you have to re-inspect it before you put it on a car. There is little sense in this. There is a phrase in Japan that translates into English as, "The right part appears on the line at the right time as if by magic." And in Japan the part is made a few hours before it is put on the car.

That suggests, then, an interesting model for not only thinking about things, but also doing things. The problem with teacher supply and demand is that we have not thought about it in this way. We tend to think about it in terms of yesterday's problem or today's problem, but not tomorrow's problem. And one of the reasons that strategic demographics can help us is that it tells a little bit about the situation tomorrow without becoming futuristic. Demographics has a lot of power because it does not need a turbaned Johnny Carson pressing an envelope to his forehead to know

the answer. As Mike Timpane [President, Teachers College, Columbia University] said so nicely this morning, we don't know the questions yet. But if you look at the present more carefully, you will have a leg up on the problems of the future. A different way of thinking about problems can be useful in planning for tomorrow's education.

Let me give you a couple of examples. When I talk to business groups, which I do about a third of my time, the typical point of view on international trade is that we must make the world safe and free for American products to compete openly and fairly in the marketplace. How many times have you heard that? What's the great American high technology product? Probably the IBM PC. We all agree that represents American technology at its best. Take one apart, and you come up with some astounding findings. You want to make the world fair for competition for that? This thing has products in it that are made by fourteen different countries. Disk drives, as you know, are the most sensitive and vulnerable parts of the whole operation. If anything were to destroy IBM, it would be the fall of the Singapore government. So, in making the world clear for competition, we must realize that almost any product that has an on/off switch on it contains products from several different countries, even if the label is General Electric, Kodak, or General Motors. That suggests that international trade is not what we normally think it is.

Creative Collaboration

Let me give you another example closer to home. This list represents the power structure in higher education: the American Association of State Colleges and Universities, the National Association of State Universities and Land Grant Colleges, the American Association for Higher Education, The American Council on Education, Association of American Colleges, the Association of American Universities, the Committee on Professional Accreditation, the Council of Graduate Schools, the American Association of Community and Junior Colleges, the College and University Personnel Association, the College and University Business Association, the American Association of Colleges for Teacher Education, the Council for the Advancement and Support of Education, the American Associa-

tion of Collegiate Registrars and Admissions Officers, etc.

When you think about collaboration, you need to start thinking about all the various groups with which you can and should collaborate. I am not suggesting that teacher education programs are not important. I am suggesting that every chief needs to develop a portfolio of collaborative relationships with businesses, in addition to these groups. The Council of Graduate Schools is the key to the future of professional education of teachers in the United States. It does not have a direct line relationship with those problems but should. As a chief state school officer, you should be able to talk not only to the dean of the school of education at your flagship state university, but also to the president. It doesn't mean that you are going around the dean of the school of education—take him or her with you.

The point is very simple. If you look at industrial collaboration with higher education, where you go in determines where you come out. If you go into General Motors and talk to the vice president for manufacturing about collaborative relationships, you will come out with a collaborative manufacturing relationship with General Motors, because that is where you went in. Corporations are very funny about that. If you come through one door, you'll tend to go out through that same door. Therefore, if you go into a university through the school of education structure, and that is the only way you go in, that's the way you will come out.

Here are some other organizations that are important to educators. These are the learned societies that tend to dominate subject matter control in the United States: the American Psychological Association, the American Philosophy Association, and societies representing sociology, political science, chemistry, physics, modern language, history, and others. There must be twenty-five or thirty learned societies that represent content at its highest. I think it is a shame not to involve those people in your collaborative relationships, because every professional association has a statewide officer. Who is the director of the American Psychological Association, for example, for your state?

They all have statewide offices, and it would be very interesting to start thinking about the teaching of American history by going to the person who represents the American Histor-

ical Society in your state. I want to make it clear that I am not in any way trying to deride or downplay the role the schools of education can play. If you are looking for leadership in the Washington scene you can hardly do any better than Dave Imig [Executive Director, American Association of Colleges for Teacher Education (AACTE)] and Dave Smith [President, AACTE Board of Directors]. They are very competent people. That's not the issue. The issue is, shouldn't you as a chief have a blend in your portfolio of a lot of different kinds of collaborative relationships?

Point number one, which I hope will be useful to you, is that over the next five years, you ought to start thinking about the portfolio you would like to develop. Think about not only blue-chip or Fortune 500 corporations, but also small businesses in your state that have a lot of future; think about service jobs, service occupations, and the information services, because they are growing most rapidly. And as you reflect on the breadth of your environment, you might want to consider not just the schools of education, but the whole continuum of education.

The Continuum of Education

Look at the sequence of education from nursery school and kindergarten through higher education. Most of us don't pay much attention to the system as a whole because none of us see it all at the same time. What the chiefs see is the system from kindergarten to twelfth grade, and what Harold Eickhoff [President, Trenton State College] sees is basically the system from the college freshman year on up. Therefore, although he is very smart, he doesn't spend as much time as he might thinking about elementary and secondary education. Being a good president, he is thinking more about it than he did before. The levels are age-graded, and we don't think much about the consequences of what's going on in other levels.

The most successful undertaking to increase the possibility that the young person will stay in the educational system is Head Start. There are 400,000 people in Head Start in the United States and three million are eligible for it. When have people in public school ranks lobbied systematically for doubling the Head Start budget? When have people at the university level systematically gone to their

congressional representatives and said, "Look, I don't necessarily need more money for us alone, I also want to lobby for more Head Start programs in our state"? Oklahoma is one state that is giving some consideration to establishing a statewide Head Start program. Louisiana is another.

The leadership is so segmented that we are not allowed to lobby outside our area of responsibility. That is another problem. We go in and say we need more money for the public schools. What is their first response? "Well, we would like to give you more money, but these colleges and universities are on our neck all the time." What is the solution? Once in a while get a higher education person to lobby for you and then return the favor. We should think of this system as a single entity and provide support for other parts of the system when they need it. Head Start needs your help right now. I would be very surprised if Head Start stays in the budget forever.

This is a time when a chief could testify on the issue without any problems. Take a few legislators to lunch and indicate your concern for the future of Head Start programs in your state. The payoff on that investment is huge. Right now, a \$4,000 investment in Head Start usually saves \$22,000 in the later programs that we don't need to provide—criminal programs, alcoholic and drug abuse programs, abortion programs, and others that are not needed by the Head Start group, because they are simply different. This is the best investment any state could make. That is one example of how a step on your part to support another part of the system yields benefits to you in the long run.

The problem with Head Start is that it took almost twenty years to show that it works. Consider the many school reform programs that the legislature passed in the last three years. Instant improvement? You know as well as I that you cannot get that. It is very seldom that you can find an educational program that shows direct results in less than ten years.

Models of Collaboration

Many interesting collaborative models can be developed. Both Michael Timpane and I spent some time thinking about it. Look at the Micro-electronic Computer Technology Consortium (MCC), which was the big item before the Saturn project. Governors then would kill in order to get the MCC in their state. It is a

model in which corporations share research and development. They pool their R & D funds so that they can then compete with each other in product development. A very interesting idea that Bobby Inman thought of and made work. He is a very smart fellow.

What would be the equivalent of that for chief state school officers? Where could you share resources so that you could individualize and tailor your programs to better meet the needs of states? When I talk to governors they are mostly concerned that federal legislation does not allow much individualizing at the state level. They think that programs are full of strings from Washington and cannot be tailored. There is a model there for what you could do across states in a collaborative way, and I am pleased to see that chiefs are beginning to think that way.

That is why Mike's [Timpane] comment this morning about collaboration was so interesting. Why don't we just get together? If there is a common interest, and benefits can be deduced on both sides, collaboration will happen. Many small colleges are now realizing that if they put together their library resources, they can have a university-quality library, instead of five small college libraries, allowing the colleges to compete for admissions as very individualistic places.

In New England, most of the TRIO projects are now beginning to move towards partial mergers, which mean a centralized business and accounting office for five or six TRIO projects. They get the benefits of advanced purchasing, with large volume, and so on, which allows them to offer individualized services at a higher level. These collaborative models may help set the rules for when and how you want to do it.

The Barter System

The simplest form, of course, which we have been using as a society since we were founded, and are probably better at than anybody else, is the barter game. Barter is now an almost \$150 million economy in the United States, according to many people, and the reason we engage in barter, or course, is to avoid reporting it to the IRS.

Looking at your school systems and the needs that other people have, we begin to figure that simple exchange of resources is a remarkably interesting approach for principals,

superintendents, and chiefs. Therefore, many functions can be enhanced through collaboration. It can be very simple—as in, you have an axe, and your neighbor has a tree. The collaboration is simple, but you have to arrange for the return. The question really is: how do we establish comparable worth of different functions when we trade them?

Let's say you have a superintendent who needs two more word processors and the school district does not have any. There is a nice swimming pool in the high school. Across the street there is a high-tech firm that is beginning to grow a lot, and seems to be quite successful. They bought four Laniers that they do not need to use. But they do not have a health maintenance program for their work force. What happens? Their workers swim in your pool; your secretaries use their Laniers on down time.

The key question is: how many of hours of swimming pool time equal one hour of Lanier time? That is where these things break down. But once you establish that relationship between the swimming pool and the Laniers, you have what in the parlance is called a "float." That is, whatever happens in the economy, that relationship remains stable. It has nothing to do with the value of the dollar, which is why barter is such a marvelously useful tool. Money has nothing to do with it. It is the value of the function per each. Once you establish that, it can go on forever.

What would a state budget look like if it were collaborative? In every one of your states there are two separate but equal budgeting processes that develop two separate educational budgets, and there is almost no contact between the two in the states we surveyed as of a year ago. Three governors reported that they occasionally bring in the chief state school officer and the SHEEO [State Higher Education Executive Officer], lock them in a room, and don't let them leave until there is some kind of grudging agreement between them. But it is seldom a collaborative communicative process. I think this is going to get better. Basically what comes out of most legislatures now is a higher education budget and a public school budget.

What is the relationship between the two? It is often quite difficult to tell because state legislators have not been overly concerned about that. Today, most state legislators with whom I talk are getting much more concerned about

that whole system. There are three main points. The first is: how good are we at retaining people to high school graduation? That is very important for the state economically. If the person does not graduate from high school and goes on welfare in the tenth grade, supporting him will cost a lot of money by the time that person dies at seventy-two years of age. Without a high school diploma, the chances are pretty good that he or she will not work.

The second question is: how is the state doing in terms of transition to college? Do we get the best people? According to *Involvement in Learning*, one-sixth of the most able young people do not go to college at all. And third, we have college graduation. So the state has a series of educational endeavors, and legislators are beginning to think about the quality of our state system, meaning kindergarten through grade sixteen. This different way of thinking about the educational system is eventually going to mandate collaboration. This at least ten years down the road; you don't need to worry about your job when you go home, but it does suggest that the policies are going to be different, and that the collaborative model that we are starting today could well lead in this direction.

I support collaboration between public schools and colleges of education 100 percent. I was the dean of a school of education for seven years; nothing could be better than such collaboration. But you also should have systems that create liaisons with rest of the higher education community. It seems to me that is important, too.

When I was the dean of the school of education at Simmons College, all of the deans of the local schools of education got together. We appointed as professors people in each of the major public schools that we used for student teaching purposes. They were listed in the college catalogs and carried college rank, and they supervised student teachers in their schools for all the universities that placed student teachers in the Newton, Wellesley, Lincoln, and Cambridge schools, and so forth. That was in 1959.

So we have been through that route many times before. That was not the right time for this kind of collaboration, because it disappeared. In 1959, Yale University decided that people who teach freshmen at Yale would go into New Haven public schools and teach the

New Haven high school seniors. And in the same year, the high school faculty who taught seniors went to Yale and taught the Yale freshmen. Talk about learning! Just imagine professors who had taught Yale freshmen for years going into the New Haven high schools to spend a year teaching English to seniors; imagine the appreciation each group developed for the difficulties and challenges facing the other. That experiment lasted only three years because it was the wrong time.

Cooperative Relationships: A Middle-Aged Agenda

This is the right time. You probably now have ten times the cooperative relationships you had ten years ago. They seem to come out the woodwork! Nobody knows why. Let me offer a hypothesis.

The average American today is thirty-one. We are becoming a middle-aged society. There are more people over sixty-five than under eighteen, and this will be so as long as you live. If we import five million Saudi Arabian one-year olds, it doesn't change the data. Nothing can change it. That means we begin to become middle-aged in our outlook. Two of the General Motors executives with whom I work were saying of the famous collaboration on the Toyota, "It is very simple; we can't afford to compete with them." That is a middle-aged viewpoint. The adrenal cortex is down. One's natural tendency to challenge, to come in and try to do the other person in, which is characteristic of young people, tends to give way.

We tend to think about entrepreneurship by collaboration. And looking at the hundreds of agreements between American corporations and overseas corporations, we begin to see the enormous pressure and potential that exist when former rivals join to compete more effectively as a consortium. There are a lot of other hypotheses for why there is so much collaboration, but a decade ago we did not have the indicators that suggest the kind of collaboration that is routine today.

Four Agendas for Education

The next point is about teachers. We have been through four social agendas given us by society in the last forty years, starting with "equity" in the 1950s, "innovation" in the 1960s, "relevance" in the 1970s, and "excellence" in the 1980s. It is pretty clear that in

each decade we demanded a certain kind of teacher. What we most wanted in the 1950s was blacks. Blacks started coming into the teaching force in large numbers in the 1960s when what we needed was innovators. The blacks who came into this system were blacks who valued traditional education, of which they had never had enough. As a result, when the pressure came for innovation, we were getting people from Tuskegee who wanted a very classical, traditional curriculum in the public schools.

Then, of course, in the 1970s what we needed was not curriculum people, but people who understood kids. As a result, people who came into the system in the relevant period were just about wrong for the period. Now, of course, we are in this period and what are we getting? From most schools of education, we are still getting the people who were produced in an earlier era. That means there is a lag in our system between the time we sense a new need and the time we can develop the product and get it into the schools. The lag is at least ten years. We cannot expect the school of education to turn its manufacturing function around totally in one year. There is no way that can be done. Just to establish new blandishments, recruitment techniques, and rewards to get people to go into teaching is a three- or four-year proposition. So by the time we are really ready to implement excellence, we will be out of something else. That's why Tokyo says that we might as well call ourselves the United States of Amnesia, because every decade we forget what we were interested in the decade before. And indeed, that is the way we are.

As you know very well, today's superintendent in a state that has passed an excellence reform measure can be sued on two grounds. First, if he does not agree to implement the resolution, he will be sued. Second, if he does implement the resolution, most of the people who flunk out are going to be black or Hispanic, and he will be sued on a discrimination charge. How do you want to be sued?

Indeed, legislatures have forgotten these reforms for the most part because they legislated them. When I spoke at a national conference of state legislators two years ago, I mentioned the fact that all of these things were still in the pot bubbling around. The legislative response was, "No, that's not true; we've done that." Well, we have not done that. We have not de-

segregated housing in America. We have more people living in segregated housing now than there were in the 1950s. Though we have desegregated some jobs, there remains much more to do. But the legislative mind is to pass bills and move on to the next set of social problems. And that is okay; that is the way they have to think.

This then suggests that the challenge is yours, because you have to keep all four of those problems in your head at the same time. And it relates to the problem of finding good teachers, because a good teacher in each of these four areas is different. A good teacher at Swarthmore would last about two days at Antioch and vice versa. The word in the trade is that Antioch is a place where people go and talk about education, and Swarthmore is a place where people write term papers. The kind of faculty that is good at Swarthmore is simply not terribly good at Antioch, and vice versa. It does not mean that one is better than the other; it just means that colleges have different values, and that pluralism is what makes this an exciting and efficient system.

Teaching Supply: The Unseen Work Force

Here is another perspective on teacher supply and demand. The colleges and universities in this country have about twelve million students and roughly two million faculty, including part-timers. I think that is about right. Here is American business with ten million workers taking eighteen million courses a year, and two-thirds of them are offered in-house, in the business. They are not hired out to other organizations, like colleges and universities. The two-thirds represents a faculty of close to a million and a half. IBM alone has a teaching force of eighty thousand people. What do they teach? They teach everything from high altitude physics to music appreciation. And we talk about a teacher shortage?

There is the military with four million students, and no one knows how many teachers they have because they won't tell us. We know how much money they spend on education—it's a great big budget. Here we have the United Way and the other nonprofits that run large education centers and hire large numbers of teachers. The federal government is the largest procurer of education in the world. Fifteen million workers and half of them undertake some form of yearly education. Add

these up, and there are some forty million American adults enrolled in postsecondary education. The question is, who is teaching the tens of millions of adult students who are not enrolled in our colleges and universities? No one knows the answer. Nobody knows who those faculty are and where they came from, except that we think that they have the same degrees as your faculties have.

I have spoken to the Bell and Howell faculty. They all have master's degrees, most of them in education, but they chose to teach for the Bell and Howell schools. When pondering teacher shortages, we have to think of all the places in the country that have qualified teachers, even qualified by our standards, including the standards of the National Council for Accreditation of Teacher Education (NCATE). So, as we look around, we begin to get a different sense of what is out there in addition to the school of education supply and demand situation.

There are a number of corporations that have their own institutions. Many corporate colleges offer their own degrees. It is interesting that many of these degrees are regionally accredited. Many corporate colleges have the same accreditation as schools of education in your state. And they deserve it. These are high quality institutions. You cannot go to Wang Institute without realizing that its master's degree in computer software management is a better degree than can be obtained almost anywhere in the country.

So, when we think about the possibility of getting more teachers, we must be aware that all of these degree-granting corporate colleges have large teaching faculties that are very highly qualified. We are beginning to see some degree changes also. There are some 200 corporations that have joint degrees, that is degrees that are jointly developed by a corporation and a university. Dana Corporation, the world's fourth largest manufacturer of transmission parts, has a joint degree for its employees through Bowling Green State University. The education comes to the employee. One reason engineers like to work at Dana is the educational fringe benefits. Most corporations have the same fringes for health, retirement, and so forth, but educational fringe benefits are becoming a major way to lure new people to corporations.

If one works for IBM, he or she gets a degree in part through Systems Research In-

stitute, which is a State University of New York-affiliated program. I suspect there will be a big growth in the number of collaborative relationships that involve degrees between American corporations and American universities. This is a potent source for new teachers.

The new teaching force coming into the public schools from that kind of a background will be thirty years of age as opposed to twenty-two. The person may be a more mature individual who has been around and has now decided that, after a career in the military or twenty years at IBM, "I want to do something important." In terms of potential, that is a different teacher than, if I may say so, a post-pubescent adolescent who goes directly into the teacher education program at a college. There is nothing wrong with that, but we need a more diversified approach to get many people from various walks of life to consider teaching as a profession.

A New Pattern for Education

We need that because people are going back to school all the time. Lifelong learning is a reality in America. That was not a possibility for me. I am a Depression person, as some of you are. I stayed in graduate school as long as I could, because I knew that when I left, I could not go back. I had no resources. Then I went to work. On the other hand, my kids go back to school forever. Every time they get new jobs, they go back to school. It isn't for one day or for one week; it is for three months.

This suggests a brand new pattern for education. One sees a different teaching force preparing to teach at each stage of a person's development. Everybody loves that system. It is good for business and it is good for universities. The only people it is not good for are our registrars. Most registrars think that a moral, ethical student, a Depression student, will come to college and go straight through—124 credit hours, a bell rings, and he or she is educated. They are absolutely convinced that the duration of an education, even though we don't have any idea of its content, is 124 hours—not 122, not 126, but 124. The fact is that less than half our undergraduates have ever done the right thing.

Research conclusively shows that is not the way people go to school. So we have another way of thinking about this set of issues. This way proposes that, rather than looking for

eighteen-year-olds who go to college until they are twenty-two and then go into the schools, we might begin to think about what schools of education could do differently.

Oakland University in Michigan has a very interesting school of education run by a very able dean. This fellow decided that there are several ways people can teach. At the school of education there, one can do student teaching on a military base if he or she wants to teach in the military. Teachers can work for the Association of Fitness Directors in Business and Industry (AFBI) if they want to get into the health and fitness programs in business. Physical education majors find that a wonderful source of jobs when they leave their programs. There are 200 corporate colleges that will take student teachers. There are nonprofit programs like the big Red Cross program in Michigan. Day-care centers present many opportunities for teachers. Teachers are needed at proprietary schools, in the Small Business Administration seminar programs in Michigan, and at government teaching centers. All of these possibilities suggest a different view of where teachers are going to come from and where teachers ought to go.

The reciprocity of that, of course, is that all these outfits could eventually begin to feed teachers back to the public schools after the student teaching has been completed. In thinking about student teaching and schools of education, we have been stuck for a long time on square one, the standard market matrix with which you are all probably familiar. I contend that we have a brand new market, that the students we will teach in the public schools are not the students we have had for the last fifty years. They are going to be strikingly different. Therefore, we need some kind of new teacher education product for a basically new market. Changes are taking place in our country's population that clearly indicate the patterns in teacher demographics that Judy Lanier [Dean, College of Education, Michigan State University] described on the opening day of the seminar. You can sell shoes to fifteen-year-olds if you want, but if you are a president of the company and I am on your board, I will do my best to get you fired. That simply is not where the market is. Where is the market? It is right here; it is mostly white; it is mostly middle-aged. It is the largest market available, whatever you want to sell people, even if it is education.

As a result of this kind of demographic shift, we can easily understand why Scott, Foresman, a company with which you are familiar, decided in 1980 to establish a lifelong learning division. They take the third-grade basal readers, remove the pictures of bunnies and zebras from the cover, and put in pictures of adults doing serious things, like learning to read and talking with each other. The lifelong learning division is a fairly profitable part of the company.

Why did Scott, Foresman make that strategic decision to get into lifelong learning textbooks? Because they looked at the demographic data. If that isn't striking data, I don't know what is. There are a whole bunch of adult needs in your state that are not being adequately met. Does the chief state school officer have any responsibility for programs on the other end of life, for persons aged fifty, sixty, or seventy? A lot of those programs take place in the public schools.

That leads to a number of heresies, one of which is that retention—which means that students should stay in school under any circumstances so they graduate on time—will be less useful when the average student in America in higher education is over twenty-five years of age. By the time a student is twenty-five, he or she simply has a lot of other things in his or her life. The notion that a person should go straight through becomes less useful than the notion that we need to begin converting dropouts to stop-outs.

I believe a lot of high school dropouts should be dealt with that way. Give them a series of rules and say, "Okay, you have three important things to do. When you do these things, come back and talk to us, and we'll be glad to continue your education." Colleges and universities are going through great change in the way they are relating to outside groups, like businesses, governments, and so forth. We will see a lot more of this as life goes on. It results in a new view of management on the college campus.

In a hierarchical system, you find that only the president makes contact with outside forces. That, basically, is where higher education had been until around 1965. What we are developing today, however, is a very interesting array of relationships between academic departments and people in the outside world who need those skills. Indeed, if you want to

find expertise in drug and alcohol counseling in a place like St. Louis (where substance abuse is a big problem for business), you look at the universities. There you will find increasing liaisons between the drug and alcohol counselors who work in the business and the professors who work in the universities and train such counselors.

That is a metaphor for teacher education as well. Who are the people in the community who need teachers in addition to colleges, universities, high schools, and elementary schools? There are possible sets of relationships that can go both ways. Let us say you are concerned about computers in your schools. You could very well find people in the business world (indeed you are probably doing this already) who could find very good teachers and administrators to help you set up the computer programs that you want for the school.

The difficulty with teacher education is that we have a very disintegrated market in almost everything today. In 1950, if you wanted education beyond high school, colleges were the only game in town. There was a monopoly. Similarly, if you wanted to borrow money, you went to a bank; to pursue basic research, a university; and to receive a health checkup, a hospital. Those were the only games in town. Today, we have an astonishing array of service providers and consumers of services. A person today can get his or her college degree from a business or from the government through the Federal Executive Institute. Degrees are offered through the military, various civic groups, or one of the six or seven labor unions that run their own colleges. You can borrow from a bank; you can also borrow from Sears, if you are clever, because Sears has thought about what the average American family really needs.

The average American family, incidentally, is not the Norman Rockwell painting of the working father, the housewife mother, and the two school-age kids. Remember those pictures? Does anybody know what percentages of the households in America fit that mold? Seven percent of the households; the data came out last month. It was eleven percent until last month. Now seven percent of the households contain a working father, a housewife mother, and two school-age kids. What was the first company that put that into their investment strategy? Sears.

The Demographic Picture

Look at our next problem, as illustrated by the Bureau of the Census. It is also a problem for business. Why does every McDonald's have a "Now Hiring" sign out front? The answer is that we are running out of people in those key years between sixteen and twenty-four. It is a very big decline. On the other hand, the baby boom, some of whom are in this room today, represents the largest single concentration of population that we have ever known as a society. Seventy million people hatched in eighteen years.

European nations had a baby boom after World War II also, but theirs lasted only three years. Why did it take us seventeen years to celebrate the end of World War II? I get embarrassed every time I look at these figures. Indeed the baby boom is now pushing forty; the leading edge, the big show crowd, sets the pattern for the rest of the baby boom. By the 1990s, they move into their fifties. By the year 2020, the baby boomers are retired, and the younger people are paying for their retirement.

That is not an economic argument; it is simply a demographic argument. How many people pay in, how many people take out? We have 2.2 million people over eighty-five in the United States. Think about being eighty-five—how many years did you work and how many years did you get retirement benefits? The group in our population that will increase most rapidly in the next decade is those over eighty-five. When my father retired, seventeen people paid his social security trust fund; when I retire, three will pay mine. I realize that of the three people who pay my social security, one will be a minority worker. This gives you a new understanding of some major problems.

Indeed, blacks are now up to twenty-one percent of the work force. If Hispanics are added, almost a third of the work force is non-white. As a white person contemplating that, it suddenly becomes very important to me that minorities in America get a good education and a good job. The reason is not Democratic Party rhetoric; it is not *noblesse oblige*; it is sheer white self-interest. In Texas forty-six percent of the public school students are non-white. If they all leave high school in the tenth grade and go on welfare, there is not enough money in the world to support them and whites who want to retire. I can't tell you how thrilled and

pleased legislators are to hear this because they are not. It is, nevertheless, important to realize that as the percentage of minorities in our population increases, mutual success becomes more important.

In business, research and development cheers when packaging does well. When minorities in America's inner-city schools read better, as they are now, do you hear cheers from the universities? You need a very good ear to hear the faint cheers that come from college walls.

The next decade will be dominated by a group of seventy million people, the baby boomers, whose agenda is like this: these folks are basically concerned with their own careers, families, houses, cars, and that sort of thing, and will be for at least another decade. The social concern of that group will be relatively downplayed. Indeed, judging by the brand of footwear you all are wearing, many of you are following this agenda already. When I first started talking to chiefs, a lot of you had Adidas on, and I notice now that you are following right along with Timberland. Timberland has decided that at forty-five one should not jog. (Most doctors will agree that you should not unless you enjoy knee-transplant operations.) Timberland developed an athletic shoe so that you can still be a jogger while you walk in the woods. If you are an MIT graduate, this might appeal to you more, since there are a lot of long words in it, suggesting that this is a super-technology shoe. It is so expensive, they don't even need to put the price on it. And when you are sixty-five, what can you do? Your sporting goods store will be happy to keep you going forever, with a series of weights, fancy shirts, and socks priced probably triple their worth.

The baby boomers, therefore, are not going to help much with the problems we are facing in teaching and schools, because they probably will not go into public school teaching for some years. But when they become fifty, I suspect that some of their social dynamism will return. These, after all, are the people who threw rocks through the bank windows at Stanford and Berkeley. My hope is that they will come out of the banks in their fifties. I met one of my former students on Wall Street about two months ago, who had been at Berkeley when I was there. We talked briefly about what he was doing. I said, "Gee, you were one of the best Marxists I ever had in

class." He said, "Keep your voice down." I asked, "What are you doing now?" He said, "I'm a banker on Wall Street." "Are you still a Marxist?" He replied, "No, no, no. I am a liberal." I said, "Tell me about that. What's a liberal?" He said, "A liberal is a Marxist with two children."

As a matter of fact, half of all college students are going to be over twenty-five by 1992, only seven years away. When we think about the college student in a school of education becoming a teacher, we are thinking about eighteen to twenty-two year olds, because that is the conventional wisdom. The unconventional wisdom is that half of our college students are older, and almost half of them are going to school part-time. Put those facts together and you get quite a different recipe. It looks something like this. Higher education enrollments declined by 600,000, but this figure actually represents a loss of a million-and-a-half younger students and a gain of almost a million students over twenty-five. Schools of education have been slow to pick that up. I think that is a fair accusation. At a time when they are moving curriculum around, they have not sought a wider age range in their students. That is beginning to change, but this is pretty clearly the agenda for the student teacher in the years to come. That is, half of the students are going to be part-time and over twenty-five.

Why are the baby boomers so interesting in relation to this? Well, there is a good theory about why they are so sedentary and ego-centric. If you look at the number of other baby boomers born when they were, you get a sense of why they are working so hard to establish their own uniqueness, their own identity. I was born in 1931. Almost nobody else was. When I went to elementary school, teachers said, "Come on in, we need you." My whole life has been a matter of walking into institutions and being told, "You are in short supply. We don't have many fifty-year olds who do what you do. Come on in." No baby boomer has ever heard that. The tragedy of this generation is that there are so many other people who want the same thing simultaneously. A demographer named Easterlin once said that, next to social class and sex, the key determinant in an individual's life is the number of other people who were born in the same year. This is both sort of humorous and sort of tragic.

As a result of the recent baby boomlet, we

are beginning to see an upturn in school age population from kindergarten to third grade, and this will continue. We need to look at what the increase in population is going to be like because our assumptions are that it is mostly white. The correct answer is that it is mostly non-white.

More Demographic Factors

Let's look for just a minute at the so-called "youth belt," the Southeast and Southwest, where the population of young people is increasing. During the last decade, we have closed 4,000 elementary schools in the Northeast and Midwest and opened 3,000 elementary schools in the Southeast and Southwest. What was wrong with those schools? Were the teachers not qualified? The teachers were terrific. There were not any kids there. The power of demographics is a little bit like the steam roller. You either get out of the way or do something else, but you don't stand there and argue with it. If we could build elementary schools with rubber tires, we could simply truck them to the Southeast and Southwest and save ourselves millions of dollars. So in the youth belt we have a major need for new teachers.

Yet the need for new teachers is not distributed equally across the country, or within a state. We all know that. In New York State, some places have big increases in teacher need and others still have declining needs. Within the state one can see how complex the picture is. If we consider the distribution of particular groups in the United States, what population is concentrated in the urban parts of the country? Blacks. We have 256 black mayors in the United States, most of them in urban areas. A black suburban middle class, with strong black leadership, has developed in most major cities. Of course, young black people are also concentrated in these cities.

Just to show you the flip side, consider the older population in the country. In 1983, for the first time in history, there were more people over sixty-five than there were teenagers. Southern Florida is pretty old. Consider the middle of the country, where in many areas twenty percent of the population is over sixty-five. The three most rapidly aging states (not the oldest, but the most rapidly aging) are Kansas, Missouri, and Iowa. Is Iowa aging because older people are retiring there for the

views of the mountains and the seashore? The state is aging because the young people are leaving as soon as they get their driver's licenses. We have a major exodus of youth in that part of the country. One story not often told concerns the family farm in Iowa that is foreclosed not for the expected reasons, but because the son does not want to take it over. He wants to move to Malibu.

This exodus creates the possibility of a serious generational conflict in that part of the country. Farm families are typically very cohesive. Life is going to be a little more difficult for these older people if their children are going to live in Malibu and Scarsdale. Of course, there will always be some young people in these states, although the birth rate among people over sixty-five is not spectacular.

The demand for new teachers is highest in the youth belt and New York State. These areas have high percentages of minorities. It was interesting to be in Mississippi yesterday, where fifty-one percent of the public school students are non-white. Many states in the nation are moving toward thirty and forty percent non-white. In California they are approaching that in the elementary schools now. Our largest states, California, Texas and Florida, have very significant minority percentages.

In the big-city schools there are increasing percentages of minorities as time goes on and the jobs move to the suburbs. One of the most important big-city development stories is about Miami, a city of 600,000. It is surrounded by a metropolitan area of almost two million. The money and jobs are increasingly moving out of the poor city into the surrounding suburbs. That's why in Chicago only fourteen percent of the commuters go from a suburban house to a downtown place of work. That is why the cab driver on Interstate 80 or 90 going to Chicago, when asked why the road is crowded both ways, always says, "It's very simple; no one is going downtown."

The question is, "Can minorities move to the suburbs?" The answer is, thankfully, "Yes." As we look at the shrinkage in numbers of youth and the decline in white fertility—1.7 children per female, when it was 2.8 in the heyday of the baby boom—and look at the Hispanic age pyramid, we sense the changing makeup of this country's population. This shift is terribly important for our country's future, because all these kids have to do is grow up, a simple trick

that many of us have learned. It does not take too much intelligence to grow up. These cohorts, if they move along, will have an enormous impact on all of us. The average white American is thirty-one years of age; the average black, twenty-five; the average Hispanic, twenty-two. Who is going to have the most children? Not the white female. There are 150,000 last-gasp births by white women at age thirty-four, who have decided, "Either I have one now or I don't have any more." Most of the births are going to be among minorities simply because they have more young females in the age range that can have children. This is a fair and simple fact.

Let me close with a somewhat sad commentary on our life and times. In the last decade we have made enormous progress at the high end of the job spectrum. I am talking about officials, managers, professionals, and federal executives, positions to which blacks, women, and Hispanics have had increasing access. As Mike [Timpane] said this morning, one reason we have fewer people going into teacher education is that women can be on the Supreme Court, which is probably more fun. These improvements are significant. More can be done. But there is little doubt that the door to occupational futures has opened a little bit for blacks and Hispanics and opened a lot for Asian-Americans, of whom we now have three-and-one-half million in the U.S. However, at the very time upward mobility seems possible, we find more and more blacks and Hispanics have decided that high school is a very good bet and that college is not. If they don't go to college, they can't become teachers.

The Case Against College

Why, at the very time that occupational doors are opening up, are more black and Hispanic kids deciding they don't need to go to college? The usual answer is that financial aid for blacks is not keeping up with the demand. I think if one is black, he or she thinks about college in terms of four dimensions: "First, it is four years without income. So, if I made \$15,000 a year, that is \$60,000 off the top, and I could never make that back no matter what the theorists say. My gainful-employment life is of limited duration, so for four years I don't make anything. Second, I have to pay the university \$20,000 or \$30,000 over a four-year period. Add that to the \$60,000, and

I have a \$90,000 investment before a single dollar of salary comes in. Third, this administration lacks commitment to financial aid programs for minorities anyway. Fourth, the college degree doesn't make one that different from the rest of the population. One out of four workers has a college degree. College graduation does not necessarily mean I will get a first-class job." This is a formidable set of circumstances.

One opportunity that steers many blacks away from teaching is the military, which provides four years of food, clothing, housing, salary, and college. It is a tough argument to beat. Indeed, the fact that a college degree qualifies an individual for a civilian occupation that is going to pay quite well makes the military even more attractive.

Let me introduce some demographic assumptions about the next few years that are of interest to educators. Fifty percent of Americans live in the Eastern Time Zone, and thirty percent live in the Central Time Zone. There is no Sun Belt; there are two very distinct and separate forms of development in the United States (the Southeast and the Southwest). One of the most rapidly growing areas is the Sun Gulf. Seventy percent of our people live within 100 miles of an ocean or a Great Lake, a handy piece of information should you want to sell something. The more you look at population distribution, the more you see some things that are really important. Consider New York City. Think again. It is part of Boswash, Boston to Washington. Boswash is a city. Fly over it sometime. Look at the way goods, services, and ideas are transmitted, and you will see that Boswash is indeed a boundaried entity. It works beautifully, because densities are high and it does not have a mayor.

There is a city called Sansan, San Francisco to San Diego; two others are Chilou, Chicago to St. Louis, and Cleveburg, Cleveland to Pittsburgh. The country is moving towards very high densities in those city areas and a lot of our teaching weight is going to be concentrated there. We still need teachers for rural areas; that is going to be a tough problem. But urban areas are where our population is increasingly congregated. And again, once you head west from Minneapolis, you'll have to go a pretty long way before you arrive in a densely-settled area.

The urban areas are where teacher demand is greatest—not in the core city, which is de-

clining in terms of numbers for the most part, but in the rapidly expanding suburban areas. That is an issue we need to think about. Who is going to be teaching whom? For example, we know how many blacks have escaped from the big city in the United States and moved to the suburbs. These data are available for the first time in my report, *All One System*. We get a clear sense that there is going to be a sophisticated black middle class who are not going to want their children to go to the local community colleges where they went. They are going to want their children to go to Yale. They are going to expect a very different quality of public education, which is what attracted them to the suburbs. The classic American model of upward mobility.

As we try to forecast teacher demand, we cannot just look at the high growth states. The census and National Planning Agency differ strikingly on what they think the rates of growth are going to be. Although predicting the cohort for the year 2000 by age, sex, occupation, and race (plus or minus a few percent) is not that difficult, predicting where people are going to live is getting to be quite tough. At any rate, we cannot say that the states where population is increasing will have the greatest teacher needs because many of the states are importing large numbers of older people who won't have children. You can't use any of the growth models to predict the teacher demand.

Makeup of a Changing Population

As we review our assumptions about young people, two events of the past two months bear recognition. *Time* recently devoted a special issue, which I thought was first class, to immigrants. We have fourteen million immigrants in this country, as many as in the 1920s. Immigrants tend to come here with young children, or they have young children shortly after they arrive. But they are not coming here from Europe; they are obviously coming from South America and Asia. Indeed, those continents now make about equal contributions to immigration growth in the U.S. The number of Africans is increasing a little but not very much.

A lot of our stereotypes about these people are going to be changed. We assume that all Asians genetically know English at birth even if they were born in Vietnam, and of course it

is absolutely untrue. Many language problems are developing all across the country—in Louisiana, where large Vietnamese populations moved in, and in New York, Illinois, California, and Florida to some extent, too. This, then, suggests some big problems with the supply of teachers for these young people. I live in Alexandria, Virginia where we have about 400 Vietnamese kids in our schools and not a single certified teacher who speaks the language, so far as I know. The *Lau v. Nichols* decision never considered the range of languages being spoken. The Southern California Gas company writes bills in seven different languages, and it has telephone operators trained to speak in Mandarin or Cantonese.

The first thing that the new immigrants see is not Ellis Island and the Statue of Liberty, but the Los Angeles Airport. We do need to address the challenge of training teachers for these non-European immigrants. Nobody knows much about them. We do know, however, that most of our stereotypes about who makes money in the country and who has high SAT scores are going to be turned around rapidly. So, first, there is a great big change in the population of young people to be taught. Many of them don't speak English, many of them are members of minority groups, and their numbers are going to increase as the white birth rate decreases.

The second point is that the week after the *Time* issue appeared *Newsweek* had a special issue on the striking change in the American family. The changing American family and the influx of fourteen million immigrants, of whom some two million are probably school children, together have had a dramatic impact on our nation. I can't imagine a chief state school officer who doesn't have an increase in single-parent kids in his or her schools. It seems to happen in every state, even Utah, although the percentage there is lower. So immigrants, new changes in the family structure, and finally major changes in the work force mean new challenges for education.

The Generation of Low-Level Jobs

Our economy is turning out to be extremely good at generating low-level service jobs that require very little education and career goal training. Let's consider the manufacturing work force in the 1950s. One could be a blue-collar worker in a manufacturing plant and

send his kids to college. It was not always this way in manufacturing. The rise of the unions brought about that particular dynamic. Today, however, only thirty percent of our work force is in manufacturing; seventy percent is involved in services. The service work force is beginning to look like this: a small number of executive, professional, and high-tech jobs; a whole lot of low-level service, clerical, and semi-skilled jobs; and not much in the middle. The "middle" jobs are very desirable and worth developing.

As educators, how would you feel about major corporate decisions to put more intelligence in a machine and less intelligence in the worker? American businesses have done that for ten years straight. When you go home, walk into McDonald's, and order a Big Mac. Look at the cash register and tell me what you see. I would be very surprised if you find keys with numbers because McDonald's decided two years ago to put pictures on their keyboards. Why did they decide to do that? Because they wanted the intelligence in the machine. If you are smart enough to spot a French fry on sight, then you are smart enough to work at McDonald's. How do we feel about that as educators? Are we happy with a "dumb-down" job that requires less intelligence and training on the part of the worker?

I haven't heard too many people raise that as a policy issue. But look at the jobs that young people are getting today. They are low-level service, clerical, and semi-skilled jobs. I read about some growth, and that is very nice, but that's not the real issue. Teacher supply and demand is only chicken feed, albeit important chicken feed, in the context of the overall employment situation. Twenty-one million new jobs in the economy, and relatively high-tech jobs will amount to less than a million of them. What are the rest going to be?

I don't like this, but this is what our young people are going to be. This is what they are becoming right now: janitors, nurse's aides, sales clerks, cashiers, waiters, general clerks, nurses, food preparers, secretaries, and truck drivers. Not a high-tech job in the lot, with perhaps the exception of the professional nurses. What kind of a high school education do these people have? For every job in high-tech there are going to be six lower-level positions. And many of these jobs are strikingly difficult to automate.

I do some consulting for Holiday Inns of America. One of their more interesting projects is the development of an automated maid. They've looked seriously at this issue and decided that maids should go. If they can find a machine that cleans a hotel room, that will solve some of the company's financial problems forever. Television tapes of these robots trying to clean a hotel room are some of the funniest things I have ever seen. One cannot imagine the range of things that can be found in a hotel room. The computer program to solve this problem has never been written. Last year in Cleveland, Ohio, a dead horse was found in a bathtub. No computer could deal with that. Here is my wedding ring. It is designed to be as unique and individualistic as possible, because I am married to a very special person. I want that wedding ring to be different from everybody else's wedding ring. To a computer, however, it looks a lot like a pop-top can. Imagine discriminating all wedding rings from all pop-top cans, and you understand why there will never be an automated maid.

Some of these service jobs, then, are very important and require more human judgment than employers have willing to acknowledge. What is the solution to this problem? We built the middle class into the manufacturing economy, and we will build the middle class into the service economy. It will take us ten years, but we are beginning to see it now. Most of you probably exercise. You may exercise at a club where somebody gives a diagnosis and a workout based on your physical condition. Then he or she gives you an exercise program to follow. That is a brand new middle-class job—a professional, because the service professional is one who diagnoses, prescribes, and monitors. Those are the classic service functions.

As I said, it will take ten years to build a "middle" into the service work force, and we will have to unionize some of these people. In the insurance business right now, there is a great need for assistance in the dictation "tanks" (they look like sweatshops) where people work on computers that monitor their performance. I believe these jobs will eventually come together, and we'll build a second middle class as we did with the manufacturing world. It is not going to be easy and will take quite a bit of time.

What I am trying to do is to provide you with a context in which we can think about the

issue of teacher supply and demand in a larger sense. If there is one thing that concerns me about the next few years, it is not social-economic or ethnic issues. I think we are on the way to solving the problems of class and race right now. What does bother me is that we are in danger of generating groups of information haves and have-nots. Look at how computers are used as drill sergeants in big-city schools. They dominate kids and give them rote questions, and the kids answer them in a passive way. Then look at how suburban computers are used as tool that a person controls. The problem is in the different ways of utilizing the computers.

We need to consider what we are going to do, in terms of teacher education, about the possibility that we may well be generating a group of people who do not know how to get access to information (even if the distinction is not necessarily race- or class-determined). In the next twenty years if a person does not have access to information, he or she won't make it. Consider America's youth, its minorities, its women. How do they make that move? And will the younger group pay for the retirement of the baby boomers? Those are pretty tough questions our society will have to deal with for the next twenty years. We'll solve them. We have the most amazing capacity to generate solutions for social problems of any society I have ever been in.

When I was at the National Institute of Education, I travelled to the Soviet Union where I had the pleasure of working out with a Soviet "B" hockey team. They were not very good by Soviet standards, but I thought they were pretty terrific. They are masters of the prepared play. The plays were always given by defensemen with a certain number of cuts on their wrists. One could tell exactly what the play was going to be. They would then go into a play they had rehearsed thousands of times. I saw a Soviet team complete a play after they had lost the puck. The American style is to have a defenseman clear the puck at the net, and say, "Hey there is Bill up on the blue line. He's not supposed to be there. However, he is there, and Joe has just staked out the defenseman on the other wing." A pass goes to Bill; he gets it to Joe just in front of the net, and a play that was never rehearsed takes place. When that happens, it brings people to their feet automatically—no matter what their race, class, or nation—because the name of that

game is not hockey, but innovation. Nobody has done that better than we.

Koreans, Vietnamese, Poles, Czechs, English, French—the reason they come here is that we value their energy and ideas. That is why the issue of teachers and the teaching force is so important. If we don't get good teachers for the groups that are going to form the energy, talent and innovation of the next generation, we have failed as a society.

JOHN H. LAWSON (Commissioner of Education, Massachusetts): You attributed the two percentages depicting a sizeable drop in minority students to changes in financial structure and need for all those students. I wonder if that is the sole issue. In talks with me, many minority high school students express concern about whether they are welcome in college. Could you speak to that and relate it to those percentages?

DR. HODGKINSON: That is a very good and very tough question. Many of the minorities I talk to share the view that colleges do not seem to welcome them. Small colleges in the Northeast have no indigenous black population in the community. They have only one or two black faculty members. It is just not going to be very friendly for a black student to go there. In the 1950s we created artificial communities on many campuses. We had black studies' programs and black houses, and we had one or two black faculty members who lived in the community. Most of those are now gone. Colleges like Wooster in Ohio that worked so hard on that issue now feel that other approaches must be tried. What those approaches will be is not yet clear. UCLA is fifty-six percent white in its entering freshman class. The entering freshman class at Berkeley is fifty-three percent white. A large proportion of the nonwhites entering Harvard and Berkeley are Asian-Americans. The percentages of blacks and Hispanics at Harvard have not gone up much at all, while the number of Asian-Americans has doubled. They feel welcome on campus.

Now that is a really interesting set of questions. How do we deal with that? I must confess I have no easy answer, except that we tried in the 1950s and 1960s to create artificial minority communities, and that did not work. Something else has got to work.

SAUL COOPERMAN (Commissioner of Education, New Jersey): Daniel Moynihan made his report almost thirty years ago. He vilified the erosion of the black family structure. We now see overwhelming data on the teenage mother in poverty. You presented data on blacks graduating from high school but not going on to college. Where is the hope other than Head Start? Where is your cause for optimism, given your demographics and report after report on the data on the eroding black family structure?

DR. HODGKINSON: I think it is pretty clear that most of the reports are correct. If you look at the percentage of teenage pregnancies, although two-thirds of them are white, a disproportionately large percentage are black. About half of the illegitimate births in the U.S. are to blacks. Teenagers are more likely to give birth prematurely. Low birth weights are associated with undeveloped immune systems and major health problems. Low birth weight is an important predictor of major learning difficulties. Invariably, as we help premature babies survive that first month, we will see more handicapped students entering our schools. It is as simple as that. I will add that blacks in America have a very high rate of teenage pregnancies—higher than in any other nation—but so do whites. It is too easy, I think, to describe that set of issues as a black phenomenon only. Look at the white rate, eighty-three per thousand, more than anywhere else.

Sexual activity is not the heart of the matter. Rather, it is access to birth control information. Ask any pregnant teenager in the country, "Would you like to do it again?" The answer tends to be no. That is why we have over 500,000 teenage abortions every year. Yet if they have one child, there is a very strong tendency to have a second, among minorities especially. A female who has a first child almost inevitably has a second child without wanting it, because there are no counter courses. In the 1950s there was a strong black family. When a female occasionally did have a child, there was a family support group. What you find today is a group of people very much like Joy Jackson. Joy is sixteen and a mother of two. What Joy needs of course is some kind of support, and there simply is not any there.

What really bothers me is the enormous recidivism. If you find a teenage mother giving

birth to children, those children will become teenage mothers themselves. There is almost an inevitability about their lives. That is the most pessimistic aspect. I don't think there is any easy answer for what happens. It is clear to me that racism is part of the problem, but not the entire problem. Blacks who have come to the United States in the last ten years from Africa and the Caribbean region (Jamaicans and so forth) do extremely well. After ten years, their average incomes are higher than incomes of whites. However, there is almost no improvement in the indigenous black population. The difference is not genetic. If African blacks move to the U.S., they soar off like eagles. Why? First, they are middle class. Second, they have solid, stable families behind them. Look at the Jamaicans, Vietnamese, or Japanese who enter the country today. They represent the middle of the economic structure, a high level of aspiration, discipline, and a willingness to forego some things today so that their children will have more tomorrow. That is a very common set of values among those who make it. The black indigenous population simply does not have that collection of characteristics. That is why the problem is so difficult.

If you were a black living in Harlem, you would now have seen the fourth ethnic group pass you by. The little grocery stores in Harlem are no longer owned by native-born blacks, but by West Indians and Vietnamese who have moved into the area. Native-born blacks have seen that happen with three other groups. That remains the most difficult, insurmountable problem. There is no easy answer.

Do you see any relationship between these issues and teacher supply and demand? I have been trying to make that connection in a way that is relevant to you as educators.

ALBERT SHANKER (President, American Federation of Teachers): On teacher supply and demand, there are two scenarios. Of course, they could be developing at the same time. One scenario includes a much smaller cohort of kids graduating from high school and going to college. Schools of education are going to have to compete for this talent with all those other educational institutions and others. In this case the outlook is pretty pessimistic in terms of our ability to do well. On the other hand, look at the two-tiered job system—where you have very few jobs that re-

quire educated people and more and more jobs that require little education. In this case one can envision having quite a few educated refugees who have prepared themselves for all sorts of occupations and professions that are disappearing. They will be a marvelous pool of talented people who are available for teaching. Where will we be in ten years with regard to those two directions, especially in terms of minorities and recruitment of minorities into teaching?

DR. HODGKINSON: The problem is that minority groups who come to the United States do not see their aspirations fulfilled through careers in teaching. A couple of exceptions—there are Japanese who have always been involved in education. In Japan a teacher in the public schools has very high status. In this country we have not often tried to recruit actively from newly-arrived minorities and hire the best we can find. One-third of the Asian-Americans who come to this country have a college degree when they get off the boat or plane. Fifty percent of the immigrants who come here from India come with a college degree. As Al [Shanker] suggests, there is a very large pool of talent here, but they do not come to the United States to teach in high school. So the first job is a sales job. We have to get more minorities to see public schools as a way in which they can guarantee their children's future. All immigrants want to secure a better life for their children.

What will happen? I think there will be a mix of developments, both good and bad. The white, middle-class, suburban child is beginning to show a little idealism again. Scott Thomson's survey at the National Association of Secondary School Principals shows that those people are beginning to ask, "What can I do for my country?" That motivation, I think, must be behind the desire to enter teaching. Frankly, we must improve teachers' salaries by at least a third. What most upsets me is that legislators who pass the standards have not, for the most part, been gutsy enough to pass the legislation that increases the salary level so we can say that teaching is a profession. I hate to say this with folks here like Gerry Tirozzi [Commissioner of Education, Connecticut], but I taught in West Hartford, Connecticut, and I would be teaching there today if I could support two children on that salary in a middle-class way. I love public school teaching, but

it could not provide the economic advantages I wanted for my family. That is why I got out of it. I think you can multiply me by about a million.

To put all this together requires a diversified strategy. There is no single answer. If we don't do something to recruit minorities into teaching, they will not come by themselves. And that is especially true of Asian-Americans,

who have other things in mind. But if we could accomodate their entrepreneurial spirit in the context of public school service, we would have a marvelous new group. Remember—the military, business, education—we are all running out of young people, and we all want the same kids. So the competition for that group is going to be even more formidable in the future.

A CASE STUDY IN THE DEVELOPMENT OF EFFECTIVE COLLABORATION OF SCHOOLS AND COLLEGES TO ADVANCE THE EDUCATION OF TEACHERS AND IMPROVE THE QUALITY OF EDUCATION AT ALL LEVELS

Eugene M. Hughes
President
Northern Arizona University

Good afternoon. If I look tired, I want you to know that it is because I did not sleep at all last night. I so wanted to have a good turnout of chiefs today that I stayed awake praying, yes, praying for continued rain. Wisconsin needs rain and I felt that the chances of the chiefs staying for lunch and listening to Gene *who* from Northern Arizona *what* would be much better with a rainy day. Thank you, chiefs, for your tenacity and you, Lord, for the continued rain.

For the past two and a half days we have heard a number of challenging and stimulating presentations that have keyed on a number of words. I have noted some of those words and added a few of my own. Compare your list with mine:

Visionary	Partnerships
University-Wide	Networking
University Without Walls	Integration
Team Leadership	Field-based
Statewide	Experiential
Service-oriented	Excellence
Retirements	Creativity
Residency	Cooperation
Radical	Collaboration
Quality	Broker
Performance-based	Abolish

My topic this afternoon relates to all of these key words and I would like to begin with the last one—abolish. You will recall that Frank Newman suggested earlier in the week that it would be great if we could establish entirely new organizations or institutions to deal with teacher education. How would you like to do that? Well, we have by first abolishing our traditional college of education.

When I was invited to address this summer institute, I welcomed the opportunity, especially because it was suggested that I share with you some of our experiences in the establishment of our recently created "Center For Excellence In Education." In creating the Cen-

ter, we, and the "we" included Arizona's State Superintendent of Public Instruction Carolyn Warner, abolished our heritage—our traditional college of education—and ventured into some new ways of teaching teachers to teach through a statewide and university-wide cooperative effort. In the process, we have learned quite a bit in one short year.

Northern Arizona University (NAU) is often referred to as Arizona's "Mountain Campus" because it is located in Flagstaff at an elevation of 7,000 feet, in the foothills of the volcanic San Francisco Peaks which rise to just under 13,000 feet. The campus is surrounded by nearly two million acres of pine and aspen forest, crystal blue lakes, and several scenic wonders including the incomparable Grand Canyon of the Colorado River. In addition to enjoying the most picturesque scenery of Arizona's three universities, NAU is also the most fortunate in having fewer problems normally associated with larger universities, such as our two mega sisters, Arizona State University and the University of Arizona, both of which have student populations between 30,000 and 40,000 students, while NAU enrolls slightly less than 12,000.

Since its founding as the Northern Arizona Normal School in 1899, Northern Arizona University has been known statewide and in the Southwest for its long-term commitment to the preparation of teachers and school administrators. Thus, in 1984 it assumed a leadership role in the state in response to the national movement toward fundamental reform of teacher education by creating the state's and, as far as I know, the nation's first comprehensive Center for Excellence in Education.

The Center is the embodiment of several of the most important recommendations made in the flurry of recent national and state studies on education. It is also a response to the primary recommendation of all of these studies, namely that colleges of education undergo fundamental, systemic changes and become

fully integrated with other colleges within the university as well as with all levels of public education.

Although we cannot claim that all the methods we employ in pursuit of those goals are new, we do know that we are the first university to dismantle completely our existing college of education in order to create the kind of school needed to prepare teachers capable of returning the United States to world leadership in education.

Although effecting change in an educational institution is normally, as you all know too well, a glacially slow process, the accomplishments of the NAU Center's first full year of operation have been significant.

My purpose in being here, however, is not to praise NAU, but rather to share with you the means by which we are pursuing the institutional reform needed to improve our teacher preparation program, with the hope that perhaps our experience may benefit those of you who are considering similar endeavors.

The Need

As I have reflected on it, the impetus for the creation of the Center for Excellence in Education began with my participation in the 1981 Council of Chief State School Officers Summer Institute, "Quality Education: A Common Agenda." Subsequent attendance and participation in the 1983 Council of Chief State School Officers Yale Conference, "Excellence in Teaching: A Common Goal"; study of *A Nation At Risk*; and service on the Governor's Task Force, coupled with a sequence of other events, led us at NAU to our present stage of development. Let me read you a few notes that I made in February 1983, after listening to Ernie Boyer [President, Carnegie Foundation for the Advancement of Teaching]:

1. Use South Beaver School, which is adjacent to NAU, as a special NAU/Flagstaff Public School institution, somewhat of a demonstration project.

2. Use NAU faculty as consultants to Flagstaff public schools, even to teach enrichment courses.

3. Use Flagstaff public school faculty to consult and teach in the university.

4. Make joint appointments between the university faculty and the public school faculty.

5. Financing. How do we finance all of this?

6. Can the public schools identify potential teachers among their graduates, with NAU

providing scholarship assistance so they could enter the profession?

I also made the following notes of items I wanted to discuss with my Executive Council at Northern Arizona University: we need a vigorous school of education that provides leadership in working with the schools; working with the arts and sciences disciplines; and setting university admission standards in collaboration with public schools and the state department of education.

Therefore, chiefs, impetus for the creation of the Center for Excellence in Education goes to you, and especially to my friend and colleague, Carolyn Warner [Superintendent of Public Instruction, Colorado], for providing me with the opportunity to listen and to interact with your speakers and participants, especially Ernie Boyer and John Sawyer [President, Andrew W. Mellon Foundation]. And, although they didn't realize it, the Mellon and Carnegie Foundations, through their sponsorship of this summer institute series, have indirectly funded a major educational reform in Arizona at a total cost of ten nights lodging, ten continental breakfasts, ten luncheons, and a few dinners.

A series of fortuitous events followed, which soon made my required course of action self-evident. In November 1983, I heard Paul Woodring address the American Association of State Colleges and Universities (AASCU). Woodring, a distinguished professor of educational psychology and a former education editor of the *Saturday Review*, had just been named the AASCU Distinguished Alumnus for 1983. His remarks offered many cogent insights into the problems facing teacher educators. He underscored our responsibility with a quote from John Dewey that "All other reforms in education depend on our success in improving the quality of teaching personnel."

Woodring also suggested that the multiplying echelons of administrative authority within universities have, over the years, severely limited the opportunity for intellectual leadership from central administration and have contributed to a situation in which interaction among faculty takes place almost entirely within departments. The resulting fragmentation of the university as a whole has led, in the case of AASCU institutions, to a loss of appreciation of the original purpose of those schools.

Nearly all AASCU schools began as "normal

schools" created specifically for the purpose of preparing teachers. Woodring contended, "We have been permitted to accept additional responsibilities, only because we convinced the legislatures that we could become comprehensive universities without neglecting our primary task." He further suggested that we return to the original idea of the normal school, which was to establish the norms for public education.

The final event that convinced me to initiate fundamental change at Northern Arizona University was my reading of a report by Clark Kerr in which he stated that only about twenty percent of today's university presidents are assuming any leadership role in academic matters. Remembering Alfred North Whitehead's comment, "Celibacy does not suit a university; it must mate itself with action," I decided to join that twenty percent.

The Opportunity

My first action was to prepare a position paper for the Arizona Board of Regents that proposed the establishment of the Center for Excellence in Education. The routing of the proposal was somewhat unorthodox in that it was submitted directly, rather than through the normal university faculty committee and system channels. But it was imperative to move quickly because the deadline for modification of budget requests to the state legislature was only three weeks away.

From this point events seemed to take on a life of their own. Although I invested a great deal of energy shepherding the proposal through the political process, the Center for Excellence seemed very much an idea whose time had come. From the outset, a spirit of cooperation and collaboration pervaded the project.

The Board of Regents approved the proposal despite its unconventional presentation and opposition from our sister institutions in Tempe and Tucson. The proposal then went to the state legislature. Surprisingly, that deliberative body appropriated an additional \$1,000,000 last year and an additional \$400,000 this year to the former college of education's normal operating budget in order to launch the new Center.

Carolyn Warner and members of her staff at the Arizona Department of Education who were intimately involved in development of

the concept enthusiastically endorsed the Center. The state board of education granted Northern Arizona University a six-year waiver of program approval in order to provide us with ample time for experimenting with the curriculum. On July 1, 1984, the Center for Excellence in Education became a reality.

The Execution

Once the Center was approved, the question arose whether this envisioned partnership for change (requesting cooperation across the university, and with the public schools, business and industry, professional organizations, and the state department of education) could actually work.

The support of the faculty, especially those in the former College of Education, would obviously be essential to the success of the Center. With some anxiety about how the proposed changes would affect their positions, the consensus of the faculty was that something had to be done to improve the quality of teacher preparation.

The faculty was solicited with specific requests as to the contributions they could make to the Center. Many myths about the conservatism and intransigence of college professors were destroyed as these interviews proceeded.

Among the education faculty there was tremendous enthusiasm for the center, as they recognized the potential to influence positively the future of their discipline. Faculty from other colleges, especially those of arts and sciences, social and behavioral sciences, and the creative arts, immediately grasped the opportunity to make a contribution and to expand their role in teacher preparation programs. It is interesting to note that faculty from such unlikely disciplines as forestry and engineering also joined.

Having established the partnership for change on campus, the next step was to expand initial conceptual work and the existing support of the state department of education and to include the public school districts of the state. We were fortunate in that the state department of education had been laying the groundwork for the need for a Center for some time. State Superintendent Carolyn Warner had long been advocating "systemic" reform of the state's teacher preparation programs, including certification requirements based on the demonstration of teaching skills

rather than "seat time." The completion of a specific series of college courses was supposed to impart the skills needed for teaching, but the effectiveness of those courses had become an article of faith rather than an assessed reality.

As early as 1979, an Arizona State Board of Education task force had clearly delineated competencies required of teachers and administrators and had moved certification from a course work-only basis to a combination of demonstrable skills and academic preparation. The state board also initiated the "Arizona Teacher Residency Program," a system by which newly graduated teachers work under the supervision of master teachers for two years to ensure complete mastery of teaching skills before full certification. That program is now a cooperative venture of the state department of education and NAU's Center for Excellence in Education.

Another important initiative from the state department of education was the development of a "School Improvement Unit," which combined everyone from the state department who is involved in school inservice programs into a single, coordinated team. Northern Arizona University has entered into cooperative agreements with the state department and with school districts by which students earn university credit toward a master's degree through participation in these inservice skill development programs. In addition, state department of education "faculty" are appointed as adjunct faculty of NAU.

The next step was to involve the individual public schools throughout the state in a collaborative approach based on the U.S. Department of Agriculture's Cooperative Extension Service, which for years has offered similar assistance to farmers. The idea was to foster the "University Without Walls" concept, offering consultation to schools and career development opportunities to personnel in urban areas as well as to the most remote corners of the state. As of today we have twelve sites away from campus staffed by education specialists—utilizing the land-grant model of county agricultural extension specialists.

Perhaps the most important element of the Center's interaction with the schools was the assurance that we were serious about creating an equal working partnership and obviating one of the most often heard criticisms of teacher education by public school personnel,

namely, that education professors often are out of touch with the public classroom. From the outset we incorporated as much input as possible from practicing teachers to ensure that our students would be in touch with current classroom realities throughout their undergraduate career, beginning at the sophomore level, rather than limited to their final semester of student teaching.

The Organization

While we were developing collaborative arrangements with the public schools, we were structuring the internal organization of the Center to foster a cooperative atmosphere. The traditional college organizational hierarchy had contributed little to interdisciplinary cooperation. To ensure that the Center would be a vehicle for cooperation, utilizing disciplines throughout the University, a new kind of managerial structure was established.

By appointing a university vice president as the executive director of the Center, we facilitated decision-making and emphasized the status of the Center as a "university within the university." Because the executive director is primarily concerned with long range policy and strategic planning, an associate executive director supervises the daily operations of the Center and functions at the level of a college dean. However, unlike a traditional college, the Center is organized on a team-leadership matrix, a concept borrowed from the aerospace industry, organizing personnel according to the requirements of a particular project rather than on a rigid departmental structure.

The matrix approach enables different groups of individuals to work together on various projects, thereby providing exposure to new ideas and different working styles. It also allows greater flexibility of response to changes in the organizational environment, making it possible for the Center to create or eliminate programs without having to reorganize entire departments. Perhaps most importantly, the matrix system encourages professors to initiate and operate their own projects with the understanding that they may enlist the expertise of faculty and staff throughout the university without violating administrative protocol.

To understand the team matrix, it may be helpful to delineate the functional divisions of the Center, the kinds of programs in each divi-

sion, and the manner of assigning faculty to a division. There are five divisions: Professional Programs, Field-based Programs, Educational Services, Research, and a fifth, somewhat different unit, the Arizona Center for Vocational Education. The Division of Professional Programs is in many ways the heart of the Center, having assumed functions of the old college of education in conducting on-campus programs for preservice teachers and school administrators.

In redesigning the entire education curriculum in terms of course/content competency, the division took the first step in creating the skill-based program advocated by Carolyn Warner and the state department of education. Redundancies in methods courses have been eliminated, allowing students time for additional liberal studies courses and more rigorous work in content areas. The programs are organized as modules and professional semesters rather than by an accumulation of one, two, and three student credit-hour courses. And as was indicated earlier, the curriculum is experience-based.

The division also coordinates content courses with other departments and colleges within the university to provide education students with the same rigor of course work as students in other disciplines. Students at the Center take their content courses with students majoring in the particular discipline. For example, if a student plans to teach biology, he or she takes the same content courses as a biology major.

The second functional unit of the Center is the Division of Field-based Programs, responsible for administering the "University Without Walls" that offers teachers with limited access to a university the opportunity to earn an advanced degree. As was indicated earlier, the division currently operates twelve field sites for teachers from local schools with a curriculum so arranged that hours that must be taken on campus can be completed during the summer. Examples are Yuma and Nogales. Eventually, the division will have a field site in each of Arizona's fifteen counties and will establish several regional offices where students may obtain academic advisement needed to pursue a field-based degree.

The third—Education Services—was modeled after the Cooperative Extension Service and is the most exemplary illustration of direct collaboration between the Center and indi-

vidual public schools. Soon after the Center opened, this division notified Arizona schools of the kinds of services it could provide, such as inservice workshops, consultation and other forms of direct aid. The schools responded with more than 5,000 specific requests for assistance. To date about seventy schools have received assistance ranging from workshops on assertive discipline to consultation on the hiring of top-level administrators to wholesale restructuring of science and math curricula. At this time, about forty distinct projects are being operated by the division.

Our immediate involvement in the problems of the public schools has helped solidify their partnership with the university. The schools are receiving practical help now instead of being expected to wait until the influence of better-prepared future teachers becomes felt. The Center for Excellence also benefits because its extensive contact with the schools enables it to stay informed of the actual needs in the field.

The fourth section of the Center is the Division of Research. It is responsible for encouraging, initiating, and publishing research about Arizona schools; preparation of funding proposals; and faculty development activities. Although it functions somewhat independently of the other four units, the Arizona Center for Vocational Education is in reality the Center's fifth division. Similarly, it is also an excellent example of cooperation between the university and the state's public schools. Funded by the Arizona Department of Education and housed on the NAU campus, it serves as a clearinghouse for vocational education curriculum and research, and provides state-of-the-art instructional materials to vocational educators across the state. Its continuous monitoring of the training needs of industry also helps the Center maintain a vital network of contacts within the business community. Studies have shown a strong positive correlation between how well informed people are about educational institutions and how supportive they are. The contacts made through the vocational education programs serve as an important vehicle by which business people are informed about the whole range and purpose of center activities.

The People

Although tremendous effort was expended to create a cooperative organizational frame-

work, the essence of the Center is spirit, not structure. No matter how cleverly one may design an organization, ultimately, it is people who make it work. Consequently, great care was taken to find individuals to fill the most responsible positions in the Center—individuals who demonstrated an outstanding capacity for teamwork.

Normally, it might be inappropriate to single out individual contributors to a project which requires great dedication from so many, but it may be of value to provide you with examples of the type of people who are most likely to be attracted to a major education reform effort. One of the most important individuals hired to direct the Center was Dr. George N. Smith, an Arizona educator for thirty-five years, seventeen of them as superintendent of the Mesa schools, a system that, under his leadership, repeatedly won national recognition for excellence. Smith has earned statewide recognition in his three terms as President of the Arizona Board of Education and national exposure as a member of President Reagan's Intergovernmental Advisory Council on Education.

As a public school administrator rather than a career university man, his selection underscores the top priority of the Center: providing service to schools in a spirit of cooperation, not condescension. On the assumption that the quality and applicability of new preparation programs could best be judged by someone with extensive public school experience, we felt that the credibility needed to overcome the misgivings of public school personnel about changes in established pedagogical methods also required leadership by someone with a reputation for having successfully directed long-range educational strategy.

The second key person in the Center is the Associate Executive Director, Dr. David Williams, who also came from a career in the public schools. He has been a teacher, a principal, and for twelve years, superintendent of the Flagstaff school district. We tapped Carolyn Warner's Associate Superintendent, Dr. Tom Reno, to serve as Director of Field Services. Who would have better knowledge of Arizona's schools, its administrators, and its teachers?

Similarly, the Director of the Division of Educational Services, Dr. Raymond Ver Velde, also had extensive experience in public schools—having been a principal and superin-

tendent—as well as experience in the university with the North Central Association.

Exemplary of the university-wide cooperation the Center has fostered, Dr. Philip Rulon, one of NAU's most respected historians, directs the research division. Dr. Rulon took a leave of absence from the College of Arts and Sciences to help establish the research component of the Center.

Many others have made significant contributions to the Center, of course. I single out these individuals to illustrate that once the leadership was provided for changing the university's approach to teacher preparation, many dedicated and talented people were anxious to participate in that change.

The Programs

With this brief overall sketch of the Center, I would like to turn to a few specific examples of programs the Center has initiated and the collaboration necessary to implement them. One successful project at a local elementary school provides sophomore education students with an early opportunity to work inside a classroom and immediately apply techniques they have learned in their university methods courses.

This project is a response to the criticism that education students come out of college steeped in educational theory, but with little skill in applying that theory to the needs of individual students. Many researchers and practicing teachers contend that one semester of student teaching is simply insufficient time to develop these skills.

The program combines six traditional methods courses into a single, integrated, fourteen-credit-hour program of instruction and practice. Students spend four hours a day at the school, with two professors conducting formal classroom instruction and supervising the application of the methods taught.

Twenty-eight students were divided into fourteen teams with each team of two students assigned to a cooperating teacher from the school. After each instruction period, the teams reported to the cooperating teacher's class to apply the methods they had just learned. As the semester progressed, the students were given increased responsibility for conducting lessons, although the class always remained under the control of the cooperating teacher.

One result of the program has been a dramatic increase in the professional confidence of the participants, who progressed much more rapidly in their skill development than the typical student teacher. A result that was not fully anticipated was that students actually learned their methodology much faster than those in traditional on-campus classes. One factor was the continuity of instruction as opposed to the arbitrary division of lessons into fifty-minute blocks. More importantly, the lessons had an immediate relevance and an immediate feedback on how well [the students] understood their assignments and what variations of a particular method worked best for them. Every student who participated in the program reported that it was the most exciting experience of their academic careers.

The Center's bilingual and English-as-a-second-language programs are other examples of effective collaboration between the Center and the public schools. Arizona recently passed legislation requiring certified bilingual teachers in most of its school districts. To assist the schools in meeting this mandate, the Center arranged with the College of Arts and Sciences for the transfer of its top bilingual curriculum planner to work with the Center for one year. Working closely with the state department of education, the Center has prepared a set of bilingual programs that are adaptable to the needs of virtually any district in the state.

The third example of our collaboration with the state's schools is the recent completion of a set of articulation agreements with all sixteen of Arizona's community colleges. For years we have known that the loss of course credits was a major reason that students who transferred to the university were far less likely to complete their degrees than those who entered as freshmen. The agreements we have developed provide community college students with course equivalencies between their school and NAU and a written contract guaranteeing that course requirements will not change before he or she enters the university. The Arizona Superintendent of Public Instruction hailed these agreements as a major achievement for the state's educational system.

Other examples of collaboration and cooperation with the public schools include an extensive special education teacher preparation program on the Navajo Indian reservation and assistance in the establishment of the first

high school on the Hopi Indian reservation. Biology and physics faculty worked through the Center to conduct a statewide survey of public schools to provide hard data on the anticipated shortage of math and science teachers in the state.

Replication

If by this time you have begun to wonder how the Center's partnership with public schools might be replicated in your state, you might also be wondering how much of the success of the Center is due to the soundness of the underlying concept and how much may simply be the product of a unique set of fortuitous circumstances. Certainly conditions in Arizona contributed to the rapidity and effectiveness with which the Center was instituted. Arizona is a sparsely populated state with only three universities and one private college involved in teacher preparation. A reform program of this extent is probably easier to implement in Arizona than in a more populous state with a more complex university system.

Moreover, the personal acquaintance of many of the regents and legislators with the principal administrators of the program undoubtedly helped allay concerns as to the academic integrity and professional competence with which the Center would be established and operated. Such crucial components as the six-year waiver of certification requirements would have been far more difficult, if not impossible, to secure had the state felt the need to create an elaborate system of checks and balances.

The willingness of Arizonans from all walks of life and all levels of education to work together toward a common goal has been inspirational, but I am confident that people who are prepared to set aside philosophic differences and divisive interests for the sake of future generations can be found in every state. Such differences must be set aside if educational mediocrity is to be overcome. *A Nation At Risk* made it abundantly clear that the educational system in America must be an integrated system of public school and university education if it is to regain its national and international prestige. The quality of education delivered to elementary students is a direct consequence of the quality of teacher preparation offered in colleges of education. Conversely, the ability of students entering

college teacher preparation programs is a function of the quality of education in the public schools.

The recent revelations of the deficiencies in the present educational system have underscored the urgent need for creative, cooperative reform. Nearly one hundred years ago, H.G. Wells made a comment that seems even more pertinent today. He said, "Human history is becoming more and more a race between education and catastrophe." I need not dwell upon the various forms such catastrophe could take, but my experience has been that many individuals at all levels of education are more willing today than ever before to work together to develop the quality education that is our best defense against such tragedy.

Implications

When John Goodlad spoke at the Center for Excellence this spring, he contended that future technological changes and fiscal realities will create a whole new set of relationships among teachers, students, administrators, and the community. The teaching profession will include a vast array of specialties and levels of training unknown today. As these new relationships develop, it will become increasingly important for educators at all professional levels to collaborate, cooperate, and support one another.

One simple but effective means Northern Arizona University has used this year to recognize teachers and the public schools was to confer honorary doctorates upon the Arizona Teacher of the Year and the President of the State Board of Education. In addition, the Teacher of the Year and the runners-up were made adjunct faculty of the Center. These symbolic gestures were intended to show both the public and the teachers across the state that indeed their efforts are being noticed and that outstanding public school teachers should be ranked among the most valuable members of society.

To further recognize the value of public school teachers to the educational community, NAU has become involved in developing workable career ladders, actively promoting increased financial incentives for teachers, and creating faculty exchange programs that provide college professors and public school teachers the opportunity to exchange profes-

sional roles and to use master teachers and administrators as adjunct faculty.

We do not claim to have overcome all the pitfalls and problems that accompany change, nor do we pretend to have answered all the questions that our initiative has raised. We do, however, take encouragement from the words of the Roman poet Horace, who said, "He has half the deed done who has made a beginning."

The team at the NAU Center for Excellence will continue to work toward establishing the most effective and best-integrated state educational system in the nation and to hope that our efforts will be a model for others who believe as we do, that there is no more noble endeavor for human beings to pursue than to share the fullness of their humanity through the achievement of excellence in education.

Thank you.

RALPH TURLINGTON (Commissioner of Education, Florida): What has happened or is happening at the two other state universities in Arizona?

DR. HUGHES: It is difficult for me to say what has happened there. There was a great deal of apprehension and concern about the creation of the Center. My prediction is that the University of Arizona will continue to be basically a research- and graduate-oriented institution. I believe this is shown by the appointment of their new dean. I would predict they will do less in terms of preparation of teachers and school personnel and working directly with schools. I cannot yet predict what Arizona State will do. It has not appointed a dean and has so much work taking care of Maricopa County that I do not think we will see them following our initiative.

I have tried to encourage both of the institutions, as well as any others, to work with us in this endeavor because we know there is more to be done than we can do. We are trying to bring all the resources of the state to bear on solving these problems. This includes working with the schools, from preschool through the university. We welcome their input and have had some direct cooperation. As an example, the first person to teach in our Nogales Project was a faculty member from the University of Arizona whom we assigned to the project. We had one professor coming from Arizona State,

but for some reason this was cancelled, and we did not ask them again.

We continue to offer the open hand of fellowship and friendship, saying, "We would like you to join with us if you are willing to be different and innovative and work with school people to make these things happen. If you want to be a traditionalist, then we do not want you." So, that is my prediction; that is the best I can do at this point.

ROBERT H. BENTON (Superintendent of Public Instruction, Iowa): I am intrigued by this. I wonder if you could not have done the same thing had you gotten this kind of leadership in your College of Education, rather than abolishing that part of your structure?

DR. HUGHES: Bob, you might have been able to, but the problem is, within a university as within many other social organizations, when you do things through collegiality, they do not get done. It takes too long. And we might have gotten there—ten years, five years, maybe even a year from now. In terms of getting additional funding from the legislature and obtaining approval from the Regents, we had a window of opportunity about three weeks in length. Had we not moved very rapidly, it would never have happened at our institution.

LYNN SIMONS (State Superintendent of Public Instruction, Wyoming): As a follow-up to Ralph Turlington's question, did you then make any changes in the promotion and tenure policies for people who participated in the Center?

DR. HUGHES: We did not have to. During my tenure as President, we have had a policy whereby we take the funds for salary increases for merit adjustments and portion those out to the colleges and schools, in this case to the Center for Excellence, which has, in essence, the same amount of money per capita as any other unit within the institution. Therefore, faculty members involved in service with the public schools can be rewarded just as well as those in research or a Ph.D. program in biology. It is because of the way we have disbursed the funding.

CHARLIE McDANIEL (Superintendent of Schools, Georgia): I can understand how this

would be very acceptable within your own state. However, aren't the one-half of your graduates who move to other states going to meet a great deal of skepticism when they seek to be certified? How do you foresee resolving that problem?

DR. HUGHES: First of all, I do not think half of our graduates go to other states. Some eighty percent of our student body is from Arizona and most of them have been placed in Arizona. The key is that we are now a National Council for Accreditation of Teacher Education (NCATE)-accredited program and still meet the standards of the State Board for certification. We do it through ensuring that the students who graduate have the skills necessary to be teachers and administrators. While the approach is different, the skills are the same as those developed in any other program. We may have to explain that, but I think we can do it.

EVERETT HARRIS (Associate Professor, Vocational Education and Technology, University of Vermont): I am curious. Do you have a faculty senate, and did they vote on this arrangement?

DR. HUGHES: We do have a faculty senate, and no, they did not vote. Neither did they vote on their confidence in the President.

CALVIN FRAZIER (Commissioner of Education, Colorado): In the end, what will cause you to believe that the product is better now than it was before?

DR. HUGHES: In terms of teacher education alone, we can look at how well our students were performing on tests such as the Arizona Teacher Proficiency Exam and compare those results with the results of a new test that has just been approved with the Pre-professional Skills Test. They are not equivalent, but there are some similarities, and I think we can make a fair assessment. Among other things, we will have to go to the school districts and consult with teachers and administrators as to how our teachers do now as compared to how teachers did before.

We received funding for the Center on July 1 of last year. Although we knew we were going to be able to go forward on our plans, we did not have the money in time to hire

appropriate people for some key administrative and faculty positions. We are just in the process of doing that now, almost a year later. Yet we had to make that program go in order to show some progress in year one. At the same time, we had to maintain all the old programs for everyone in the pipeline. So it was rather like flying an airplane when you are just finishing the sketches on the drawing board.

RICHARD KUNKEL (Executive Director, National Council for Accreditation of Teacher Education): Tomorrow we will have a chance to visit with NCATE, and I think we will see a tremendous similarity between many of the tenets on which you are operating and those underlying the NCATE redesign. What struck me is that you started your remarks with the word "abolish." I am living with the same sensitivity with the word "redesign" right now as we move to the new system at NCATE. The challenge is not to step on the face of history. I

am wondering whether the word "abolish" was applied also to the transition from the normal school days?

DR. HUGHES: I cannot respond to that because I was not there. I do not know what the word was at that time. However, the key in our case was that we talked about what we were going to establish at the same time we talked about what we were going to abolish. That gave assurance to those who were concerned about abolishing. Also, the fact that we tried to go back to what we were originally in terms of teacher education, which entailed a university-wide effort to be a normal school and involve everybody in teacher education, gave strength to some and concern to others. It gave concern to some of those groups who do not want to be called teacher educators, even though they teach math and English to people who will be teachers.

Again, thank you for this opportunity to speak to you.

**PANEL DISCUSSION:
UNIVERSITY AND SCHOOL RELATIONS
AND THE TEACHER QUALITY ISSUE:**

What Has Been Done and What Remains to be Done?

David Imig
Executive Director
American Association of Colleges for Teacher Education
Moderator

Presenters:

David C. Smith
Dean, College of Education
University of Florida

Henrietta Schwartz
Dean, School of Education
San Francisco State University

Edward W. Weidner
Chancellor
University of Wisconsin-Green Bay

ROBERT BENTON (Superintendent of Public Instruction, Iowa): It is my pleasure to introduce the moderator for this afternoon, David Imig. Since 1980 he has been the Executive Director of the American Association of Colleges for Teachers Education (AACTE). He holds a Ph.D. in philosophy from the University of Illinois at Urbana, as well as a Master of Arts degree from the same institution. His experience in education covers a wide variety of professional positions, including serving as an assistant to the Director of the U.S. AID Mission to Liberia and as a teacher in a secondary school in Tanzania. As the chief administrator of the AACTE, Dr. Imig is responsible for overseeing the planning, implementation, and evaluation of programs, for performing public relations roles and interpreting association policies to outside groups, for maintaining close communication with the president of the organization, and for serving as an advocate for AACTE positions in policy. He has also maintained a close relationship with the Council of Chief State School Officers, a relationship which was solidified in August 1984 at a special conference in Chi-

cago involving ten deans of schools of education and ten chief state school officers.

DR. IMIG: Thanks, Bob. It is indeed a privilege to be a part of this institute. Coming to Lake Delavan, meeting with the Chiefs and others not always so friendly to teacher education, reminds me of a story that perhaps has been told too many times. A missionary in Africa shortly before his return to the United States was granted an opportunity by his bishop to take a trek on the Serengeti. There he was finally to see African game and take lots of pictures before going home.

The story, of course, is that as he walked across the Serengeti one hot and dusty afternoon, he encountered a pride of lions and immediately dropped to his knees, raised his hands and sought God's intervention by saying, "Please, Lord, protect and preserve me." He opened his eyes to see the lions also on their knees. Overcome with relief, he sought to join this supplication until he heard the lions' prayer: "Lord we thank you for the bounty you have bestowed upon us and of which we are about to partake. . . ."

Anyway, many of our members view their experiences in working with the Chiefs as not dissimilar from those of our missionary friend. On a more serious note, dealing with people like Bob Benton, Cal Frazier, Gordon Ambach, Ted Sanders, and other chief state school officers has been particularly beneficial for deans of education. The cooperation and co-partnership between AACTE and CCSO has been outstanding. I attribute much of this to Bill Pierce. Bill has brought to CCSO and also to the whole Washington environment a deep sense of interest and concern on the topic of teacher education. Understanding the role the CCSO could play in promoting excellence in teacher education and helping to shape that role has been his extraordinary strength. Bill's willingness to identify, cultivate and build collaborative relationships with others through the Forum of Educational Organizational Leaders (FEOL) and other organizations is a testimony to that vision.

AACTE and the Chiefs have had a series of activities over the past few years—Bob mentioned the Exxon meeting at Lincolnshire. I think that what Ted Sanders [Superintendent of Education, Illinois] and Dick Boyd [Superintendent of Education, Mississippi] have given to the National Council for the Accreditation of Colleges of Teacher Education (NCATE) effort in bringing together the Chiefs and deans around the issue of quality and excellence in teacher education through NCATE deserves recognition and applause. I also think the collaborative work through the Forum of Educational Organizational Leaders should be recognized.

This afternoon you have a unique opportunity to hear three different perspectives on the relationship between universities and schools and the impact such relationships can have on teacher quality. Three individuals with three different kinds of perspectives—Ph.D.s from Chicago, Minnesota and Northwestern; fields as diverse as anthropology, theater, political science, mathematics, and educational administration; a geographical spread that includes experiences at the East-West Center in Hawaii and universities in Florida, Illinois, California, Wisconsin, and Arkansas; and, finally, involvement with several different patterns of teacher preparation. Henrietta Schwartz has a fifth-year post-baccalaureate program that is mandated by the state and is dean of a large urban teacher education pro-

gram at San Francisco State University. Ed Weidner has a totally different kind of program. It reflects the innovative ways of the brand new institution that he has championed and led for nineteen years, and its location in one of America's best-known mid-size cities—the University of Wisconsin, Green Bay. Finally, there is David Smith, who was recognized this morning by Mike Timpane [President, Teachers College, Columbia University] as one of the real innovators in the effort to extend programs of teacher preparation to the University of Florida, and who has fashioned an integrated preservice program at a large land-grant institution, the University of Florida. Thus, we have three different patterns, three different individuals.

The person who has the first fifteen minutes this afternoon is David Smith, Dean of Education from the University of Florida. He will be followed by Henrietta Schwartz, Dean of Education from San Francisco State University, and she by Ed Weidner, Chancellor of the University of Wisconsin at Green Bay.

DR. SMITH: Thank you, David, I trust you will help me conclude my remarks by 2:43 p.m. I am very pleased to have been invited to attend this meeting—to listen, learn, and participate. It has been a valuable experience for me. I am grateful to the members of this group for devoting so much time to teacher education, an issue that many of us believe is vital to the improvement of elementary and secondary education in this nation. That this group is giving so much attention to this issue is in itself an important fact. It sends a strong message to the profession, the legislatures, and the university presidents about the seriousness of the Chiefs regarding teacher preparation. I genuinely hope that message will be heard. But, in all candor, I think it may need to be sent more than once for it to be received.

I would like to start by commenting on what I believe to be obvious, and I hope that you share my view. The centrality of the classroom teachers and, consequently, the importance of the preparation of classroom teachers simply cannot be underestimated. The research that has been drawn together in the last ten to fifteen years underscores that, if any of us had any doubts, this is the case. Therefore, it is very important that higher education

should be an integral part of the process of working with our colleagues in the schools.

But I would suggest to you, while that should be the case and should be obvious, that commitment does not exist on our university campuses to the degree that it should. If time permits, I would like to comment upon what I believe to be a fundamental inconsistency in commitment to the improvement of elementary and secondary education between policy makers and those who implement the policy. But after hearing the comments of the last three days, I would like to offer some information on issues that are directly, or at least indirectly, important to the preparation of teachers and the whole area of collaboration.

I think we generally agree that the data indicate that our nation is approaching a shortage of teachers. Indeed, in some states and some areas that shortage already exists. I simply want to assert unequivocally that we do have the potential to prepare more teachers. Let me give an example. In Florida, the Education Standards Commission was directed to do a study about a year ago. We acquired a sample that was statistically significant for all of the juniors and seniors in the public schools of the state. Forty percent of those who were not interested in a career in teaching indicated that they would be interested if three things changed. First, salaries. Now you are going to say, "Higher salaries? That's no news!" The students felt that teacher salaries were too low. The kicker is, they thought the salaries were presently higher than in fact they are. Put those two facts together and it suggests that the problem of low salaries is of greater magnitude than we had realized. Second, these are high school kids and you are not going to fool them. They know what the situations are like in their schools. They said they wanted better working conditions for teachers. They said, "We want better equipment; we want better supplies. We think teachers don't have the equipment to get the job done." Third, they said, "We would want to teach students who behaved better than we behaved."

Those are the three things they wanted to change: salaries, classroom conditions, and student behavior. And they were in that order, by the way.

Again, I simply observe the obvious. A decade ago the colleges of education in the United States were preparing twice as many

teachers as now. In the last decade, student enrollment in colleges of education has been declining. It is not unusual for a college of education to be fifty or sixty percent of the size that it once was. The reallocation of faculties and resources occurred within many universities, some more painfully than others. My suggestion is that the institutional capacity to prepare greater numbers of teachers is there, but it will take some time to make the adjustment.

Earlier in the week, a speaker said that we do not have definitive solutions in research. I agree with that point of view. But we also need to remember that our knowledge base on teaching and learning is better, more comprehensive, more consistent and more reliable than we had ever known it to be before. The information that has been acquired through meta-analyses and the effective teaching literature is a rich resource that is intuitively and instinctively valuable to practitioners as well as those being prepared. That needs to be remembered, and we need to be held responsible in colleges of education for incorporating the best knowledge available into preservice preparation programs.

No profession at any point in its evolution can apply more knowledge than the current state of the art will permit. But it can utilize that knowledge. I am suggesting that the curricula within the colleges of education can and need to accept that responsibility in more measures than many of us realize. There is an important point that many people do not know, but that policy makers need to be aware of. I am deeply troubled that we are not generating the kind of research that will permit people ten or fifteen years from now, assembled in a room like this, to have the next generation of knowledge that they can build upon. That knowledge is simply not being generated. If it were not for research that was done in the 1960s and the early 1970s, the meta-analyses could not have been done, and we could not be acting with the knowledge and confidence we have today. The priorities for research being funded within the states and the priorities of the federal government in funding research in the social sciences are very low, as you know. We are going to be at a point where the next generation of people like us cannot do what this generation has just accomplished. That is a source of deep concern to me.

My other point is that I do not know how to talk intelligently about teacher education as though it were a single entity. I can talk about, and work on, problems associated with the preparation of elementary teachers, secondary teachers, and special education teachers. But those three programs are sufficiently different that, if we try to aggregate the three and develop some pretty numbers and tables, they will be, I assert, largely meaningless. We simply need to look at each program separately.

My other point is that, currently, schools, colleges and departments of education need less conversation and more action. I would like to see the chiefs put heat on people like us—to ask, “What are you doing? What can you document that you have done within the last year or in the last three years to a) evaluate your program, and b) incorporate the results of those evaluations and program improvements?” It would be useful if we could get financial support at some point so that those institutions that are responsive and do engage in program development do not have to do it completely out of their hide, as is sometimes the case. I have a friend who is fond of saying, “Do something even if it is wrong.” I confess that I often disagree with the Southern Regional Education Board (SREB). But I do agree with their oft repeated statement, “Business as usual is simply not satisfactory.” I would urge the chiefs in their respective states to encourage and support program developmental activities in the SCDEs. Make people uncomfortable if they *do not* engage in risk-taking, and do not make them uncomfortable if they *do* engage in risk-taking.

Also, we have a major problem which does not appear to be well recognized. In the United States, we have many colleges of education and many institutions engaged in teacher preparation. I said a short time ago that we have approximately 1250 colleges of education. We have reduced the production of teachers in the United States by about fifty percent in the last ten years. You might be interested to know that during this period of decline in teacher production the number of institutions that prepare teachers increased by approximately 100. It is an interesting contradiction. I ask you to remember, too, that this decision was made by non-teacher educators and often, I suspect, for motives that were more monetary than fundamentally related to

the commitment to the preparation of instructors for public schools.

I would also ask the question, “Can a faculty of one or two persons in a department of education possess the knowledge that we now have in all fields and transmit that knowledge effectively to future teachers?” I suspect that at some point a critical mass of faculty necessary. I don’t have a magic number for critical mass, but I think at some point it has to be too small. I also ask the chiefs to remember something else. I am aware that there is great variation among the 1250 colleges of education—forty-two percent of them accredited by NCATE. Yet, in the discussions I have heard up to this point, we have acted as though a college of education is a college of education is college of education. I do not believe that is true.

Let me give another example, and Ralph Turlington [Commissioner of Education, Florida] can comment on it in greater detail if he cares to. In our state, we have the Florida Teachers Certification Exam. As you look at the results of that examination on an institutional basis, do you find consistent results? If not, why not? Are some schools more productive than others? Are some apparently more effective than others, and what are the conditions that lead to those results? I know, for example, that on the Florida Teachers Certification Exam the success ratio at institutions varies from less than forty percent up to about ninety-five percent. It tends to be a difficult distribution to deal with. I am talking about a sensitive and difficult problem, but I believe that it does need to be addressed. We should not treat institutions as though they were all the same when they are not, any more than we should treat all kids in the classroom the same when we know they are not.

Another comment I have heard and will address briefly relates to the best and brightest in teacher education. We are not going to get the best and brightest; that is not the right target to shoot for in my opinion. If we got all the best and brightest, we would still not have enough teachers to staff our schools. Do we have 100,000 of the best and brightest in the state of Florida alone? That is the number of the professionally certified people we have functioning in our schools.

We need to have a corps of bright, capable and dedicated people. But we need to recognize that they cannot, and will not, represent the best and brightest alone. Furthermore,

teacher education students are simply not as they are often portrayed. There are data that show that students in colleges of education tend to function at, or slightly above, the average level of the institution they attend. In the College of Education at the University of Florida—I am using it as an example because it is more typical than atypical—we are currently, in the interest of quality, declining to admit, rejecting, thirty percent of the applicants to our teacher preparation programs. And I think you will find that pattern elsewhere. If we are talking about the low quality of students in education programs, I must identify an obvious but neglected point. No one else has pointed out. That is, no college of education can admit students who have not already met the admissions standards for that institution. What is the institutional standard like if the college within that institution admits those people?

We need to dispel the notion that we have a major in secondary education; we do not. The students take many more hours in their subject matter field than they take in secondary education. They will take student teaching and typically three other courses. They will take approximately twenty-six hours of education during their four-year program. That is nowhere near a major. We maintain an illusion without reality. Thank you.

DR. SCHWARTZ: Good afternoon. I am delighted to be here. My husband, Bernie, and I had a wonderful four days, but now I must greet and run. I want to assure you that even though my husband has been sitting in on these sessions, he really is a courageous man. However, he simply did not have enough courage to be the only male spouse participating in the activities with the other spouses, so he's been with us. We both congratulate you on a most stimulating and productive conference.

Let me first tell you who I am. I am an elitist. I was an elitist English teacher. I was an elitist anthropologist. I am an elitist dean. And if elitist means going first class and never settling for second rate, I speak only to elitist groups. My task is to present to you in fifteen minutes or less a view of what is needed in collaboration from the university perspective. For those of you who are interested in the longer version, last year for *Curriculum Inquiry* I did a historical piece on successful collaborative programs on the national, state, and

local levels. I will try to do what I tell my graduate students not to do, that is, attempt to describe, analyze, and reform the world in fifteen minutes or less. I am reminded that when Margaret Mead was asked where to begin educating children for world peace, she replied, "Everywhere at once." So, while we are starting everywhere at once, let me tell you what my mother told me when she found out that I was going into public speaking. She said, "Remember my child, remember the three B's; not Bach, Brahms and Beethoven, but be brief, be brilliant and be seated." And that is what I shall try to do. Let me state four assumptions.

First, a teacher preparation program is as good as its dedicated faculty. The California State University, of which I am a part, is the largest university in the country. We have 365,000 students. We prepare between seven and eight thousand teachers a year in fifth-year programs. We in the school of education have almost no undergraduate teacher education activities. The majority of our activities are post-baccalaureate, and I shall mention the exception.

We have twenty-seven semester hours in which to prepare a teacher. They come to us with their baccalaureate, and we must give them history and philosophy of education, methods and materials, a reading course, mainstreaming, drug and alcohol abuse education, and so on, in addition to observation and participation in public schools. Then they have fifteen semester hours of student teaching or one full-time semester of student teaching. We spend about five dollars more to train a teacher than we do to give somebody a baccalaureate in our system. That is good because it used to be \$3.69 more. In the last several years we have had a number of legislative reforms, and we have received additional funding. By contrast, we spend \$30,000 to prepare a nurse. I know, because the Department of Nursing is in my school. We spend \$40,000 more to prepare an engineer—that's not in my school. The point is that there is an old Hungarian proverb that says you need to put your money where your mouth is. If we really wish to spend more time training teachers and ensuring their excellence, then we need to be willing to pay the price.

Fifty percent of beginning teachers across the nation drop out of the profession in the first three years. Our attrition rate is about

twenty-five percent, largely because of the concern of my faculty in the School of Education. It is interesting that in the San Francisco follow-up studies we discovered that seventy-five percent of the teachers we trained at SFSU stay in the profession for the first three years. We went back and asked why. The overwhelming response pointed to a very dedicated faculty that is willing to give each student a lot of time. My concern is that my faculty at the university will "burn out," because, in the two semesters that they had those students, they spent a tremendous amount of time with them—more than the full-time employee union ratio allows. How long can they keep that up? Not too long.

Second, in examining assumptions about schooling and teachers, I believe that, outside the home, schools and teachers are the chief agents of socialization in our society. I believe that schools are complex systems with two sometimes contradictory functions. We expect schools to preserve the status quo, that is, to transmit the common cultural heritage. We also believe that schools should prepare people for change—should help train productive adults who are capable of reasoning, decision-making, and problem solving in a changing culture.

Third, I believe that universities alone cannot prepare a teacher for these complex functions. We need the help of those of you in the public schools. The training institution must be tied to the practitioner both in research and in practice. Finally, academic freedom is the hallmark of the university in a democratic society. Without it, we cannot serve the commonweal. So, while we are regulated by the state, we cannot be dictated to by the state, or we destroy the purpose of the university.

This last assumption is really critical. It has implications for credentialing and program approval. I believe that credentialing and licensing and program approval are two separate and distinct functions. You, as the state officials, are responsible for credentialing and licensing. Program approval, however, should be a process of peer review, in which an NCATE organization, or something like it, comes in and examines my programs, putting a stamp of approval on them from the perspective of my use of research to train people and my engagement in the best practice. That dual system works in medicine, law, accounting, and other professions. You do the licens-

ing and credentialing, and we do the program approval. But we work together on both.

Let me talk briefly about recruitment and selection, one of the major problems in teacher education. We need your help—it is true; the pool is diminishing and getting a little muddy. The litany is familiar—women and minorities have other opportunities; schools are not interesting places to work and so forth. But there are perks and we need to look for them. Why did Mr. Chips and Miss Dove stay in the classroom for forty years? Because there was satisfaction; there was *joie de vivre*; there was some job security, although that's fading lately. But we need to impress people with the notion that teaching is a worthwhile human activity, and, as David Smith indicated, then attend to the practicalities of recruiting excellent students.

How do we get the best and brightest to enter teaching? We give them quality programs. We assure them that the programs are first class—that they have rigor, that they are a blend of theory and practice. Some mythology would lead you to believe that we in schools of education take the best and brightest from arts and sciences, give each of them a dumb pill upon entering the schools of education, and then turn them out to you in the schools. I assure you that we do not, at least not knowingly. We do try to make sure that, when we send students out to you as certified professionals, they can perform in classrooms. All the research states that people who do go through a teacher preparation program—any kind of teacher preparation program—perform much better than people who do not.

What about the content of the curriculum? As you heard this morning, many of our sister institutions have programs and do travel. We have programs, and we do travel in the Bay area. But we also understand that a university is the appropriate place to do preservice training of teachers, because they need libraries; they need to be close to laboratories; they need to be engaged in research activities; and they need to get some sense of professional identity with the occupation into which they are going. The best place to do that, quite frankly, is a college campus in cooperation with the public school. Should teacher education programs be collaborative? Of course they should. We have talked much about collaboration, but we have not defined it. Maybe it's the English teacher

in me, but I would like to define what I mean by collaboration.

For me, collaboration has four characteristics. The first is parity, parity amongst the agents and individuals included in the process of collaboration. That means on a university-wide teacher education committee that makes policy about the teacher preparation program, we have representatives from the arts and sciences, the public schools, and the state department of education, as well as the college of education. All of those are involved with the faculty in monitoring, redesigning, and reforming the curriculum. They all have equal votes.

At San Francisco State we have such a committee. We have professors from the arts and sciences. Similarly, in the name of parity, we have "professors in residence" at public schools. This is a special program funded by the San Francisco Foundation. I wish that we could have more of them. But every semester, I have six full professors in residence in Bay area schools teaching students, supervising student teachers, and doing staff development with the faculty in that school. In turn, six public school faculty come to my campus and work with the methods professors and the people in arts and sciences, and teach freshman courses in the area of their expertise. The program is called the Learning Bridge. It has been working very well. I shall be delighted to share the research reports with you if you like.

It costs money, though. It runs us about a \$150,000 a year just for that small program, and I have a faculty of 160 in teacher education. So it's kind of a drop in the bucket, but it's a good drop. Parity is crucial.

Second, collaboration means *interaction and liaison*. It's not enough for me to sit down and talk with Bob Alioto, who was the superintendent of the San Francisco public schools and the chair of my advisory committee. Also necessary is liaison at all levels of the organization. If we're doing something in secondary English, I want the chair of the high school English department to sit down and work with the chair of secondary education and the English professor who is involved in preparing English teachers or teaching methods courses. So it means lots of formally structured communication and liaison at all levels of both organizations.

Third, collaboration means *negotiation*. We sit down and talk it out. We sit in a room for

fourteen hours, if necessary, until we solve the practical problems involved in a collaborative effort. For example, if we have a MAT program, and we do, where two MATs are splitting one teacher's position, how do we handle the insurance, the benefits, the payment, the union? All of those things must be negotiated, until the problem is solved to everybody's advantage. When we do get agreements, we put them in writing. Therefore, in case I am kidnapped by pirates tomorrow, and nobody will pay the \$5 million ransom, the program goes on. We know that these kinds of programs work when they can evidence six characteristics. (I like fours and sixes; they are magic numbers.) We know they work when the program has: 1) expertise in a discipline, 2) expertise in communication, 3) expertise in learning theory and classroom management, 4) expertise in diagnosis, treatment, and evaluation, and 5) when they are supervised, meaningful field experiences, that 6) are evaluated and researched on an ongoing basis.

Fourth, collaboration means *cooperation* between the school and university during the induction period, the first three years of teaching. If we are serious about doing something with respect to the attrition rate—fifty percent in most instances—then we can do something immediately, tomorrow, to improve it. That is, we jointly can structure a year of supervised induction. I have some model programs where we do that—where the university professor follows the individual into the first year of teaching; where the new teacher has a reduced teaching load; where the new teacher begins his or her practice in a place like a teaching school, or a teaching hospital; where the new teacher gets a chance to practice his or her skills, develop an individual style, and get paid for the work; where we give the new teacher a chance for an individual/institutional match.

How do we keep the good, the best, and the brightest? Well, it seems to me we pay attention to some research. A couple of years ago, we were commissioned by the American Federation of Teachers (AFT) to do a study on stress in urban schools. We did work in New York and Chicago and discovered that in high-stress schools people were experiencing threats to their security, sociability, and status. First, they were concerned about their fiscal and physical security. Job security was a consideration as well—whether or not the car was going to be in the parking lot when they left

the school. Second, they lacked a chance to interact with other adults during the day, and they were trapped in rooms with children, and only children, except for a twenty-minute potty break. Third, attacks on status, what we began to call the "Rodney Dangerfield syndrome," emerged as the most crucial cause of stress among teachers. Four hundred teachers told us, "I don't get no respect." How can we give people who are doing noble work the kind of status and respect they deserve? When we learn how to do that, we will be able to keep the good people in the classroom.

Let me finish by saying, that all of this takes time, commitment, and expertise. Don't be like my friend, Charlie, who worked for thirty years in the steel mills of Gary, Indiana in order to realize his lifelong dream to buy a chicken farm and settle down in Laporte. He went into the feed store the first Saturday and bought a thousand baby chicks. The next Saturday, he came back to the feed store and bought another thousand baby chicks. He came in the third Saturday and bought another thousand baby chicks. Ralph, the feed-store owner, was absolutely delighted and went up to him and said, "Charlie, that's amazing. I've never known a beginning chicken farmer to buy three thousand chicks in three weeks. What's the secret of your success?" Charlie said, "Well, to tell you the truth, Ralph, they all died." Ralph said, "What do you mean? I sold you grade-A baby chicks. What happened?" Charlie said, "I couldn't figure out if I was planting them too deep or too far apart." Charlie had the time and the commitment, but he lacked the expertise.

DR. WEIDNER: I thought this was too easy. I am glad to be here, very pleased to see an operation which Bert Grover [Superintendent of Public Instruction, Wisconsin] has something to do with, because I've known him a long time. Long before he was a chief, he was a legislator, and then he was a superintendent of schools at a little town called Niagara, which is not too far from Green Bay. He has been very influential in determining some of the things we have done at the University of Wisconsin-Green Bay during that period of time. I shall mention them as I go along.

I am going to be the kind of speaker who maybe disturbs peace and harmony a little. Everything is too cozy here. We talk about cooperation and collaboration. If it is as easy

as we've been suggesting, why *don't* we all collaborate? Why *don't* we have the Garden of Eden right here? Nobody seems to want to point out any difficulties along the line. Frankly, I think it is true that, if we're going to improve teacher quality, we have to create an environment of cooperation and collaboration. But we have not done that adequately, and there are some good reasons why we have not. We might as well nail some of the problems up on the wall for all to see.

First of all, one of the problems is the incipient elitism of people associated with universities and the universities themselves. There is one thing that Bert suggested that Green Bay do when he was superintendent at Niagara. He said, "You really ought to relate to the CESA (Cooperative Educational Service) Districts, and the superintendents of all the districts should get together once a month." He said, "You ought to be working the streets a little better, Ed." So I thought about it, and we appointed someone to report to me. Ever since then, quite a few years now, we have had someone attending each of the three regional (it used to be four, Bert has been doing some reorganization) CESA Districts. There is a senior officer of the University attending every one of them. He gets there before the meeting to engage in informal conversation. He stays the entire meeting, including lunch, or whatever follows, and leaves about the time the others are leaving.

Once a year, normally, I have addressed each of these three districts on some subject, not about the glories of the University of Wisconsin-Green Bay, of which there are many, but about topics of interest to all educators. It all depends what year and what topic seems to be hot. We normally get suggestions from the superintendents as to what they would like me to talk about.

During that time (we operate in a district where there are three private colleges and three public universities), we have never seen a representative, as far as I know, from any of the private colleges. One of the other two public universities has never sent a representative. The other one, more often than not, sends a representative, who comes late, sits in, when called upon, talks about the glories of the program of his or her university, and then immediately leaves. There has never been a chancellor of any other university to address these groups.

Now I am not trying to throw mud at anybody else; I'm just saying it represents the elitism of the university. The attitude is "Sure, we'll be happy to cooperate with you school folks. You come on over to our place where we'll outnumber you ten to one, and then we'll sit down and collaborate." We do have elitism and we might as well understand that.

From the university point of view, another element of the problem is that, normally, professors don't have any contacts in the schools. Will we press a button all of a sudden and send the professors out to cure the ills of the teachers in the schools? If they don't have any context to begin with—if there isn't a background, an environment of interest—there is nothing we can do by pressing a button. There has to be a lot of contact, and not just contact for the selfish purpose of enlarging the university and its resources, programs, and reputation.

Next, I would certainly agree with Alexis de Tocqueville. Tocqueville came to this country and said, to paraphrase, "Those Americans are amazing. If no organization exists to perform a particular task, they form one. They have all these advisory committees running around doing various kinds of things." If we are going to engage in liaison, and we are a country that loves to engage in liaison, committee work is essential. I would suggest to you that the very nature of professors tends to be that they have never had any real experience working with committees. They don't know how to work with an advisory committee. If told to have a meeting, they will have a meeting, and then they'll forget about it until they're told to have another meeting.

Now that may be a little extreme, but the ability to run an effective advisory committee, take the advice seriously, follow it, feed back, work on an agenda, have another meeting, and so on in an orderly way—that is not something which professors come by automatically. Yet I think it's essential if collaboration is to occur.

To point out another shortcoming of universities, and there are others, if the universities weren't so stuffy, they could solve part of the problem of quality in teaching by raising standards in their own programs. It varies by state, but here in Wisconsin that is a matter in the hands of the faculty. They can do it any time they please. Why don't they? I think the reason is quite obvious. It is to the advantage of their institutions to have large numbers of

students, so they let into the program anybody they want to. That gives them larger numbers, a larger budget, and more jobs, so they don't raise standards. Now, we can talk about collaboration all we want, but in many universities we don't have to have collaboration; the faculty can do it by themselves. So let's not just talk pie in the sky.

I suppose I ought to say something critical about departments of public instruction in my little litany. It is fairly gentle. It's very easy for a DPI to sit there and say, "There's a little pressure group for this particular requirement. We'll look good if we put that requirement in." So a new course goes into the curriculum. Pretty soon you have a whole bunch of requirements. Then the same people come along in a different mode and say, "What we need is more liberal learning for our teachers." Well, how many credits do you want to require for graduation? If you add up all these requirements, it is very difficult to come out whole. I would suggest that, when pressured for particular kinds of course requirements, we think of the total package, and see the kind of position we're putting students in.

The University of Wisconsin-Green Bay is a very unusual institution. We don't have a college or school of education; we don't even have a major in education. Students can get a major in terms of teacher certification, but not in terms of the university. They have to take a regular major. They have to meet the regular, ordinary liberal arts requirements, and general education requirements. There is no other way to go. We don't have a bunch of education professionals over here deciding all kinds of education requirements. The requirements are university-determined by elected representatives of the faculty. That is another important factor if we are going to have quality. Within the university we have to clean up our own act and make teacher education an integral part of the entire university, not a little thing off on the side, in terms of faculty governance, student requirements, and the whole concept of education.

I think you might be very interested in something else we did. We have a school services bureau. There are, of course, very many of them in the country. Years ago, when developing our whole teacher education program, we started with a group of consultants from schools. We had an education advisory committee, superintendents, school board mem-

bers, general public, teachers, and so on. In the case of the school services bureau, we followed a similar pattern. We have a board of advisors that more or less sets policy for the school services bureau. There are twenty-one people on the board of advisors. There are only five people from the university out of that twenty-one. It is taken seriously. In addition to that, every year the 110 school districts and the 100 private schools in our CESAs are surveyed to indicate their highest priority for the programs our school services bureau ought to perform.

The kinds of things that we do are very much in the direction of the Madeline Hunter model. We have used that very successfully, and she has been on our campus many times. We have four phases in regard to our program for staff development in schools. First, we hold a two-day awareness conference; this is in each individual school district now.

Phase two consists of a day of planning workshop. Phase three is during the summer, about eight days of training for supervisors of instruction. Then, during the school year, the fourth phase is thirty hours plus demonstration teaching and a conference in school districts. I mention this because it is something worked out cooperatively with the school districts, not posted on their walls. The whole concept is worked out with the school district from the beginning.

I would like to point out that we are now working on the implementation of part of the new state curriculum for schools in regard to science education. With the Department of Public Instruction helping, a consortium for science education improvement has been established in Wisconsin. The University of Wisconsin at Lacrosse is handling elementary education, the Milwaukee campus, the middle and junior high levels, and the Green Bay campus, the high school level.

We are going to proceed by having a series of short courses for teachers during the summer as well as the academic year. Each of these courses is going to focus on a single high school course—e.g., biology, chemistry, physics, or earth sciences. There will be adjunct faculty or liaison teachers, who are outstanding high school teachers. It is not just we preaching to them; they will be involved, too. The new Wisconsin guide to science curriculum planning issued by the Department of Public Instruction will be the basis for the

courses. All of this will carry graduate credit. We hope, if we get a grant from the National Science Foundation, there will be no charge to teachers or the districts except for released time. But there again, we are planning with them; we are not planning it and then thrusting it at them. We are developing something cooperatively at the state, school district, and university level.

My last point is this: we must have a general practice of cooperation. Remember, I started by saying, I have been visiting all these CESA districts. We must have a whole variety of practices like that. One of the things we do, for example, may not sound very important in terms of teacher quality. We have an academic competition program and also sponsor the Olympics of the Mind program. Now what does that have to do with teacher quality? It gets our regular professors in chemistry, math, social studies, literature, and language working with teams of high school teachers. They develop what the contest will be about, the courses and guidelines. Then they evaluate it. In this way, they have many contacts with the teachers in the schools.

So, when it comes to improving the science curriculum, for example, they have met each other before in many different ways. The more ways we can get people together, the more effective it will be when we bring them together for a new, special purpose.

In conclusion, let's not pretend that collaboration is so easy that one can just push a button and get the desired results. On the other hand, neither is collaboration impossible. As a university representative, I believe we have to get rid of our elitism. We have to stop being defensive about the numbers of students we have. We have to go out and work from scratch with people with whom we want to collaborate. We can do all of these if we but have the will. Thank you.

DR. IMIG: I would like to summarize this session by identifying some of the concepts and ideas presented this afternoon. I think that we have heard from this panel, and also in Mike Timpane's presentation earlier today, that there are many different types or kinds of relationships between schools or colleges of education, their host universities, and local school systems. There has been much discussion of networking, or the formal connections

between universities and schools, this afternoon.

These have included:

(1) The necessary articulation between high school exit requirements and college admission standards, necessitating cooperation between high school principals and counselors and college admission officers. (Setting higher admission standards in a vacuum is wrong. Higher education now has a lot to answer for regarding the NCAA's Proposition 48 requirements and the lack of real interaction between higher education and the school system in establishing new rules to govern high school athletes.)

(2) Improving communication between schools and colleges on matters of curriculum is another topic requiring greater attention, as both David Smith and Henrietta Schwartz indicated in their remarks.

(3) Some see the relationship between schools and colleges primarily as one that centers on the inservice education of teachers. Providing graduate courses to teachers—whether in teacher education or the arts and sciences—is often viewed as the only point of contact between the two. Increasingly, staff development is being offered through a variety of alternative providers. Schools of education and/or universities are doing less and less in this area, with the private sector and your own state department offering more and more programs. We heard about one of those this morning in connection with Connecticut. We need to keep this in mind as we consider the opportunities for relations between schools and universities.

(4) In terms of other services that schools of education can provide to local schools, let me cite field studies, executive search support, consultative services, enrollment projection studies—the whole array of things that school study bureaus or bureaus for school service offer. One problem such bureaus face is that those specific activities are often in competition with chief state school officers and their programs in terms of offering those services.

(5) The essential relationship in schools of education is the need for clinical and laboratory experiences for preservice candidates. Identifying sites for student teaching, securing cooperating teachers, and maintaining these year after year is essential.

(6) Today, assuring pre-student teaching experiences is another basis for relationships

between schools and colleges. One of the most important things that has happened in teacher education is the fact that, with little or no increase in state expenditures, teacher education programs have tripled the amount of time that students in professional education spend in schools prior to student teaching. Student teaching experiences are also increasing, while the next "big movement" will be for beginning teacher or induction programs. Beginning teacher programs and the process of helping and supporting beginning teachers will call for new forms of relationships.

(7) Research and development is another rich area of cooperation. We have heard very little about that; still, it is an area that could serve to enhance relationships between schools and colleges.

(8) Finally, there are a whole set of "miscellaneous relationships" that are growing in their importance and diversity. The offering of special programs, enrichment programs, and upward-bound programs by universities during the summer is an area of growing importance between schools and colleges. University efforts to employ teachers as instructors, lab assistants, or in other roles during the summer represent another form of "relationship."

What all this suggests is that there are an enormous number of intersections, linkages and relationships between schools and colleges. Our charge must be to expand and improve those relationships, making each a full partner in the enterprise.

SAUL COOPERMAN (Commissioner of Education, New Jersey): I have probably heard the term "knowledge base" a dozen times in the last couple of days. It might be interesting to take this project. There is a statement that innovation should not be allowed when the knowledge base is known. When the doctor is taking out your kidney in South Carolina, it's the same as taking out your kidney in New Jersey—the regulation kidney. Well, I wonder how many administrators and teachers in the United States know the knowledge base? I honestly will say that today I don't see dramatic change from the way teachers taught and administrators led twenty years ago. Yet, everyone who spoke today has said the knowledge base has extended dramatically. If this is so, why can't you work from the knowledge base, maybe led by you, David [Smith], to pull

it together? I'm not being facetious. One hundred and fifty pages, two hundred pages, three hundred pages—what is the knowledge, how does someone practically apply it, and what are the citations for where to go if one wants to read further?

DR. SCHWARTZ: You are absolutely right. We need a "*Gray's Anatomy*" of best teaching practices, unquestionably. We have tried, for example, in preparing this proposal for NIE, to put together a kind of mini-*Gray's Anatomy*. What we have found is that there are some huge gaps in the knowledge base that prevent us from doing that. Let me give you one example. There is a lot of work that says teacher decision-making in the classroom is absolutely crucial. Brophy and Goode have asserted that the best teachers are those who have a sense of timing, who know when to go from one thing to the next in the flow of the classroom activities. The problem is that we don't have any good research on how to train a teacher to do that. We have information about what the good teacher does. What we don't know yet is how you teach the techniques of what a good teacher does. That is where additional research is needed. Though we can put together the skeletal outline of a *Gray's Anatomy*, we cannot flesh it out yet.

DR. COOPERMAN: Put down what is known. If we know the "what" and the "ought," then maybe that knowledge can lead us more quickly to the "how." But when we know that the research exists—whether it's engaged time, time on task, whatever it is—we should use it. I'm sure what the university knew ten years ago is not being practically applied, and, if we did so, we could utilize it in inservice training. Yesterday, Gordon Ambach said, "Write down what you expect to get out of this conference, then talk to your neighbor." This is a good, engaging, interactive learning exercise. If we were to put this kind of knowledge in a *Gray's Anatomy*, I think there would be a dramatic effect on schools.

DR. SCHWARTZ: There is a blue book that AACTE has done in a very skeletal way on what is known. It's called "Educating a Profession: Profile of a Beginning Teacher (1983)." There's also another one called "Basic Principles of Staff Development." I may not have the names correct, but there is a series of those

little handbooks. Part of the problem is that once we send out beginning teachers knowing all those good things, they are so traumatized by the "sink-or-swim" syndrome used to prepare new teachers that they quickly forget some of those things and go for the immediate survival techniques of "don't smile 'til Christmas."

DR. COOPERMAN: I am not sure it is being done so well now, but we ought to help do it better. On the one hand, we cannot say, "We have the knowledge base and it's expanding," which I believe, and on the other hand say, "We have a little book on helpful hints." We have to take our stand and say, "Here's the knowledge base and let's send it out to all, so it's good in Connecticut, in Maine, and in Florida."

DR. IMIG: Saul, there are at least three different initiatives right now that can be highlighted. First, Hendrik Gideonse at the University of Cincinnati has mounted an effort to put together that kind of handbook. He's been in conversation with Al Shanker, Cal Frazier, and others in this room about that initiative, which I think you would find very compatible with your interests. The second initiative I think will come from the proposed Research and Development Center for the Study of Teacher Education to be located at Michigan State University or the University of Texas. Producing such a handbook should be a primary thrust of that Center. The third initiative is what has been done in Florida, specifically what B. Othanel Smith and his colleagues in the universities and state department of education are doing in terms of a very exhaustive analysis of that research which led to the beginning teacher evaluation effort in Florida. Their work has produced a compendium of research that can be described as a knowledge base. For those interested, I know that Ralph Turlington would welcome the opportunity to describe that initiative.

TED SANDERS (Superintendent of Education, Illinois): One of the things not included in your categories that I assume would naturally be there is a list of the places where we do currently interact. As Henrietta mentioned in her conversation today, what struck my interest was the distinction between program approval and licensing and credentialing, and

her notion that program approval was a professional responsibility separate from state education agencies, while licensing and credentialing was our responsibility. I would like her to define those two terms and discuss the criteria and processes she believes necessary to carry them out.

DR. SCHWARTZ: That is another one of those requests to describe, analyze, and so on in twenty-five words or less. It's a very complicated procedure. Let me use the example from nursing. The National League of Nursing, which is composed of nursing educators and nursing practitioners, puts together a team that comes to my campus, after our exhaustive self study, and reviews our program in terms of: Is it in line with best practice? Is it in line with clinical performance standards? Is it in line with what the current research says shall be the best way to train nurses?

They visit our campus for two weeks and delve into everything. They follow our nurses into the hospital, question our instructors, talk to the nursing supervisors, do follow-up studies of our graduates in the field—that is validation of those that we do. Then they decide whether or not our nursing program is worthy of approval. Notice that on that team are practitioners as well as nurse educators, as well as someone whose expertise is in research on nursing education. They send in a team of just four people who determine whether or not our program is worthy of the profession's stamp of approval. When our nurses leave the program—or actually for most of them at the end of the junior year—they sit for the state registration exam. That's how they become registered nurses. That examination is put together by the nursing board at the state level. Again, they work with researchers and practitioners. Some of our faculty sit on their examination boards. Therefore, each step in the process—the licensing, the certification, the right of an individual to be a nurse, to practice nursing in a hospital—is done on an individual basis by a state agency. That's the kind of model I'm talking about.

MR. SANDERS: That's the model you would apply to teacher education. That's not the model, though, that most states are currently using.

DR. SCHWARTZ: That's the model I think is appropriate for program approval and teacher

certification. You're right, most states do not do it that way. For example, wouldn't it be easier and less expensive if the states said, "We will accept the fact that your program is approved if you have NCATE approval. After all, the chiefs have a seat on that board." Isn't that an appropriate activity, rather than your mounting teams and going through an elaborate process of standardizing, program approval, and so on? This gives you reciprocity amongst states also. Then, if you wish to determine whether the people whom I turn out at San Francisco State are appropriate practitioners, go ahead and test them.

HAROLD EICKHOFF (President, Trenton State College): There is an over-arching issue that has been touched on by a number of speakers and some of the commentators. It seems to me that it hasn't been addressed very squarely; maybe it can't be. All of the things that have been discussed would suggest that we are doing things differently than we have in the past. That means change. With change, there's some risk required. There's a story with which many in this room, I suspect, are familiar. It's about Tom Watson of IBM, who met with a junior executive and discussed a \$10 million loss this young man had incurred for the company. The young executive was expecting to be fired. Watson said, "For goodness sakes, young man, we can't afford to fire you. We have a \$10 million investment in your education." Now most of us in this room feed at the public trough. I don't mean that lightly. It's a very serious consideration for all of us, because we deal with the public's money. The question I would raise for comment in view of this is "How do you structure the enterprise? How do you position educational leadership so that you reward risk-taking rather than penalize it?" Because there are a lot of folks out there who have a very strong vested interest in the status quo. In my experience, when I talk to people about innovation, especially legislators, they say, "Gee, that's a wonderful idea. Let's go. I'll hold your coat!"

DR. SMITH: In some ways, it's very difficult for me to respond to that. We went through a four-and-a-half-year effort and redesigned a program. It's not an experimental program; we made a commitment to it. If one is going to go through teacher education at the University of Florida, it will take five years. We did

not add a year of teacher education to our program. We looked at what we thought teachers needed to know and be able to do. We worked closely with practitioners. It's very difficult to describe a four-and-a-half-year process in a short time. We had some external motivation but no external support. At present, our enrollment has remained relatively constant in both secondary and elementary education and in special education. The sharpest increases have been in the areas of mathematics and science. The average ability level of the people entering our program has gone up. I don't know whether that pattern will continue. We did know that teacher education in Florida was under attack. We thought the best way to meet that attack was to strike back and design a better program, rather than to try to defend the status quo. That's unusual behavior in higher education.

One of the things that made that possible on our campus was the unflagging support we received from our central administration at critical periods of time. We also got encouragement when we discussed the proposal at very tentative stages from both the Board of Regents and the Department of Education, and also from critical professional groups in the state—the Florida Teaching Profession/NEA, the Florida Education Association United, the School Boards Association, and School Administrators. What motivates some people to go through rather extreme changes and others not to is difficult for me to comment on. But, in retrospect, I do know that there was no financial support to establish the program. That doesn't mean we didn't spend money; we spent about \$40,000 a year during the time we were devoting ourselves to that effort. But we spent every dime we could beg, borrow, or steal within the college and wherever we could get help from central administration to bring that about. One of the things that will help in promoting change is for people like the chiefs to encourage change and make it safe to change. The young man who was told that the company had a \$10 million investment in his education learned a lot about IBM and its willingness to engage in risk-taking. Unfortunately, there are few IBMs in the public sector.

DR. SCHWARTZ: David has said many of the same kinds of things. We also have a great deal of change going on in California in teacher

preparation. For example, on campuses now, people don't come into the teacher preparation program unless they have a 2.75 grade point average overall and a 3.00 in their major. Standards are going up, and that's changing the composition of the teacher education candidate pool. We know we need to do something about the equity issues, and we are doing things.

I would like to make another observation. We talk about professionalizing teaching, and I agree that we need to do so. Yet we are the only group I know that consistently questions its professional identity by denigrating the training program that gave it its occupational status. Lawyers don't do that about Yale Law School. Doctors don't do that about the University of Chicago Medical School. But we sure take great pleasure in knocking the professional schools that trained us. I think at some point we have to make sure that we say what's good about education as well as what's bad.

DR. SMITH: A small postscript on my comments. Will the commitment to quality remain, not as we approach a period of shortage, but when we hit it?

ALBERT SHANKER (President, American Federation of Teachers): I just want to note that there was a renaissance of criticism of law schools and medical schools at the time when they did the same job that the teacher training programs do today. So I think that the criticism is needed and frequently deserved. We can gain hope from the fact that not very long ago some of these other outfits were in just as bad shape as we are now.

I'm very much in favor of professionalism for teachers; therefore, I do believe in professional education and don't like an apprenticeship model, although an apprenticeship model is better than a supposedly relevant education. I am not, however, convinced by a citation of an article that says people who have had training are different or better than people who have not. Ultimately, we have to end up with a program with at least two observable results. One is that the people who have gone through the program have to say and believe that they are doing a better job than if they had not been in it. That is not the majority's experience today.

Second, you ought to have a system where, if you were to choose a number of well-educated

college graduates who have never had one of these programs and place them among the graduates of these programs, any one of us who knows something about education ought to be able to pick out the people who have been trained from those who have not. There may be other standards you may want to put in, but if those two standards do not end up being resolved in a very clear, not a marginal, way, then I think we've got to start from the ground up and build something that will do those two things. I don't see that happening yet, and it concerns me.

DR. SMITH: Al, I would say two things in response to that. Henrietta quoted the Everton paper. Everton cites either nine out of eleven or eleven out of thirteen studies that did support the efficacy of professional preparation in terms of student performance, so it was more than just one citation. Second, we need to know what behaviors will result in greater student learning in the classroom. Teachers need to be able to recognize those behaviors when they see them. Third, they need to be able to practice those behaviors in a controlled setting with feedback. Fourth, they need to be able to practice in a field setting with feedback.

We need a better, more organized, professional program undergirded by people who know the subject matter they're going to teach. We can't do everything in less time than we've had in the past. You and I know from looking at the evolution of other professions that in-

creases in salary and social esteem follow increases in professional preparation. It's not the other way around. If we look at law over a fifty-year period, legal education has gone from the senior year and one year of post-baccalaureate work to three years of post-baccalaureate work. The salaries associated with legal education have also risen very high for those people who successfully practice in that field.

DR. BENTON: I want to comment on the issue of research and its place in this whole circumstance. We have done something in Iowa that, I think, is a bit unique. One of the major recommendations that came out of our task-force report on education was that we establish a research foundation called First in the Nation in Education. The proposal was that the state would put in \$20 million, and we would raise \$10 million in the public sector and seek a \$30 million endowment. From that we would then have a research fund. The economy's rather bad now, so we received only a \$100,000 appropriation. But at least a foundation has been established. I have been appointed one of the seven members of that board. We're going to try to get this thing off the ground. This research foundation is one that will not be placed on a university campus or in a department of public instruction. It is to be somewhat of an autonomous research foundation. We hope when we get some endowment for it we'll be able to address some of the issues that we're talking about here. I believe this is a very significant movement.

EQUITY, ACCESS, AND QUALITY CONTROL ISSUES IN TEACHER EDUCATION

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I am pleased and honored to be one of the invited speakers to the 1985 Summer Institute of the Council of Chief State School Officers. The overall theme of the conference is a very timely and important one. I congratulate the organizers for addressing this critical dimension of the current educational state of things.

My topic this morning is entitled "Equity, Access, And Quality Control Issues In Teacher Education." I should perhaps forewarn you that my perspective on this often falsely dichotomized matter has been shaped primarily by the years I spent as a public educator, an education professor, and an education dean. My involvements this past year as Chairman of the California State University Commission on Hispanic Underrepresentation and as a member of the California Commission on the Teaching Profession were also tremendously useful in helping me understand the topic.

Teacher testing is one primary arena where public educational concerns over quality and equity issues are being debated these days. The situation is ironic in the sense that originally the standardized tests developed by the Educational Testing Service (ETS) were conceived as mechanisms to increase access for talented youngsters of modest and poor economic circumstances. They were conceived specifically with the intent of making universities less elitist. The use of standardized tests, including ETS's National Teacher Exam (NTE), these days is often viewed as serving the exact opposite function—as reducing the accessibility of the teaching profession to blacks, Hispanics, and other minorities most of whom come from modest and poor economic backgrounds.

Irony aside, the era of teacher testing in American education is very much upon us. In less than five years, state-required testing for teacher certification spread from a few southeastern states to a national movement that now includes over forty states with several more in line who are considering the enactment of a

teacher testing requirement. And what's more, that movement has become much broader and more comprehensive than was ever anticipated in the early days of the southeastern states' initiative.

At the present time, the majority of the states involved in testing use some form of the NTE, but there are many other tests that are also in use, such as the American College Test, the California Achievement Test, the Scholastic Aptitude Test, and many state developed tests. The widespread use of tests for determining teacher competence raises issues that I think should be troubling to all of us.

The equity concerns around this issue of teacher testing which I want to discuss today center on three different areas of teacher testing activity: (1) the use of tests to determine who is qualified to enter the profession, (2) the testing of graduates of teacher training programs to determine if a teacher education program in an institution should be accredited, and (3) the use of competency tests to determine if practicing teachers are competent and should retain their teaching certificates.

Some Notations on the Background and Context of Issues Involved

But before addressing these specifics of the teacher testing movement, let me say a word or two about the background or the contextual factors that frame the equity issues involved in this debate. To begin with, it is important to note the dramatic shift in public responsiveness to ethnic concerns which has occurred in this country during the last four years. It is not an overstatement to say that we have witnessed a full-scale and across-the-board retreat on the part of the federal government from the War on Poverty and the anchor imperatives of the civil rights agenda for educational reform. The impact of this massive change in public posture on minority aspirations has been devastating. The effects and full consequences of that impact, particularly on the

black and Hispanic communities, are only now beginning to be understood. In the education sector, the stress and severity can perhaps best be understood in terms of how we've defined "the problem of equal educational opportunity." How one defines equality of educational opportunity determines the approaches used to address and solve the inequities observed.

Through the years we have tended to define equality of educational opportunity in two ways—the equal access view, and the equal benefits view. The equal-access-to-schooling view is the more traditional. This view contends that equal educational opportunity is attained when it can be demonstrated that different segments of the population have roughly equal opportunity to compete for the benefits of the educational system. The focus in this view is primarily on inputs to the educational system. The principal qualifying conditions to the achievement of equal educational opportunity are: (1) equal access to school for all who wish to attend, and (2) that all schools be roughly equal in regards to quality of staff, instructional materials, and school plant facilities.

Proponents of this view argue that the decision to secure what the school has to offer—to benefit from the system—is a simple matter of personal choice. According to this view, once one decides to benefit, it is his or her personal intellectual capacity, drive, and ambition which determines the results of that choice. The fact that Hispanics and blacks do not benefit equally from the present educational system is said to have nothing to do with the existence or nonexistence of equal opportunity. Rather, it is supposed to be a matter of personal choice and lack of talent and/or motivation on the part of that individual Hispanic or black student.

The equal benefits view, on the other hand, focuses on the distribution of the benefits derived from the system. Equality of opportunity is said to exist *only* if there is an equal benefits situation and not merely equal access. The burden of responsibility for ensuring that type of education lies squarely on the educational system involved.

Two common rebuttal points usually arise in discussions of the equal benefits view. First, the concept of equal benefits does not mean that all students are to achieve at the same level. The point is that the range of achieve-

ment should be approximately the same for the various groups being served by the educational system.

Second, regarding the distribution of inputs or resources, it is true that a commitment to achieve equal educational opportunity will necessitate unequal allocations of resources as well as substantial increases in accessibility. Federal education legislation and compensatory programs of the past decade justified disproportionate funding on that basis.

Although hindsight enables the presentation of these differing concepts of equal educational opportunity in sharp contrast, it is important to recognize the historical nature of that development. The definition of equal educational opportunity evolved slowly and painfully from an equal access view to a focus on the effects of school on children. From the 1954 *Brown v. Board of Education of Topeka* case through the 1970s, the courts pretty consistently ruled that equal opportunity had to consider the results or benefits derived from school attendance by minority children.

The equal benefits perspective received its greatest national impulse and acceptance with publication of studies such as: *Racial Isolation In The Public Schools*, the Coleman report, and the *Mexican-American Education Study* by the U.S. Commission on Civil Rights. These became important references for many court cases.

In assessing the lack of equality of educational opportunity among racial minority groups, these reports focused not only on the idea of equality of inputs (finances, facilities, curriculum, and teacher quality), but also upon equality of output in terms of student achievements. Although the Coleman report evoked considerable controversy, and many criticized the predictors used to measure school outcomes, the survey successfully challenged the simplistic equal access view and added a new dimension to the accepted and legal concepts of equal educational opportunity.

The move to an equal benefits perspective, although an important and positive development, led to two different interpretations of how best to achieve equality for minority children. One was that equal benefits from schooling could best be achieved by successfully overcoming the negative effects of their deprived environments. According to this interpretation, what is important is that steps be taken to

remediate the deleterious influences on the child of his or her deficient home, neighborhood, and peer group. This was essentially the rationale for "compensatory education" programs.

An alternative view was that equality of results could best be achieved by shifting the full responsibility for student success to the school. The school and societal task then has to be to create school systems that accept and capitalize on the strengths of cultural difference in a manner which will in turn lead to successful performance in school by minority children. The promotion of cultural differences is a desired end that should be recognized as a valid legitimate educational goal and utilized in developing the full potentialities of minority as well as majority children. Equal benefits from the system are to be achieved not by transforming the Hispanic or black child in order to make him over in the image of the dominant group, but by reforming the school he or she attends along culturally pluralistic lines.

Black and Hispanic educators and supportive non-minority colleagues have been strong and persistent advocates of the culturally pluralistic alternative, and provided important leadership at key points in shaping the national federal involvements during the 1970s and early 1980s. Equity was the important touchstone around which innovative reform initiatives were planned.

Although this is not the place to chronicle the full scope of those programs, it is important to point out some of the important basic themes in those initiatives. The most significant were the consistent conclusions reached about what was wrong with the education that minority children were receiving, mainly the:

1. Inadequate treatment and presentation of the historical, cultural, and economic contributions made by minorities in the content of curricular programs of the schools.
2. Pejorative and pathological perspective held by the schools about the appropriateness, worth, and status of the home language (Spanish, for example, in key southwestern states) as a bona fide medium of instruction in the classroom.
3. Under representation of minorities on school district staffing patterns: teachers, administrators, counselors, etc.
4. Lack of authentic involvement of the mi-

nority communities in the decision-making structures of the school system.

5. Testing, counseling, and guidance programs and processes based on a cultural deficit perspective of minority student needs.

The consistent identification of what was wrong in minority schools across the land yielded new goals and proposed changes to redress those inequities:

GOAL 1: Adequate treatment and presentation in the curriculum of the historical, cultural, and economic contributions made by minorities to American society.

GOAL 2: Recognition of the appropriateness, worth, and status of the home language (Spanish, in key southwestern states) as a bona fide medium of instruction in the classroom.

GOAL 3: Adequate representation of minorities on school district staffing patterns; i.e., teachers, administrators, and counselors.

GOAL 4: Full and representative participation by the minority communities in the decision-making structures of the districts.

GOAL 5: Development of a testing, counseling, and guidance system which is based on a noncultural deficit perspective of minority student needs.

Advocates for minority children who pushed for such changes recognized clearly that effecting these reforms carried far reaching consequences for the schools. They were convinced that, given the track record of American public education with minority children, little meaningful positive change was likely to occur unless the school people who held the base roles acted, behaved, and felt differently about such children. What had to be brought about was a prevailing school condition where, in a nutshell, the teachers, administrators, and counselors in our minority schools were genuinely committed to the promotion of cultural pluralism in educational form and practice throughout our schools. Ultimately, they advocated pluralism as being beneficial to majority populations as well. The dialogue over pluralism and equity centered upon critical gate-keeping activities within schools such as testing. Obviously, the testing of students and the testing of personnel who work with students are related, and quality control in personnel is an important variable in resolving issues of equity and quality for all populations.

The Teacher Testing Issues

All the preceding points were to emphasize that the stakes are indeed high in the current national dialogue over teacher testing. On one end of the spectrum it is clear, particularly to advocates of minority rights, that many of the proposed actions are thinly veiled efforts to attribute the perceived quality problems in education to the increased numbers of minority teachers and minority students in the public schools. To those who hold to this view, the obvious solution to the problem is to reduce the number of minority teachers. (Reducing the number of minority students is not considered a feasible alternative because they bring in Average Daily Attendance (ADA). At the other end are those who would argue against any and all teacher tests. And there are also those who are insisting that a compromise approach is possible in finding a "culturally fair" way to test teachers. Somewhere in the middle of all this is, of course, the insistent public pressure on legislators and, in turn, educators to demonstrate through overt action that the quality problems in public education are being addressed.

What is especially telling, to me, about the situation is that, in the rush to demonstrate overt action by testing teachers, so little has been said about the limitations of tests and about the controls states and accredited institutions have had in place for years. Too much of the public dialogue seems to paint a fallacious picture of no standards and little in the way of quality control checks. That is simply not the case. Most states and the majority of accredited institutions have had sound quality checks in place for some time to ascertain if a prospective teacher meets the state standards for certification. Through paper-and-pencil testing, direct supervised observations, and demonstrated achievement in their professional course work, students are evaluated and rated. If they meet the reasonable professional expectations set by the state for licensure, they are recommended for a teaching credential. Just as lawyers and physicians must demonstrate a basic knowledge of their field to qualify for a state license so, too, do teachers.

However, it is also true that, as in the case of lawyers and physicians, no standardized test can guarantee that a prospective teacher will be an especially good teacher in the classroom. While no one can succeed in teaching without

a strong knowledge of the subject they teach and without possessing sound methodological skills, solid professional performance and competence requires more than basic academic knowledge.

Greg Anrig [President, Educational Testing Service], speaking about the limitations of tests, puts it rather succinctly and well:

No standardized tests that I know of can accurately measure qualities such as dedication, motivation, perseverance, caring, sensitivity, or integrity. Yet when we remember outstanding teachers from our own school days, those are the qualities that made for excellence. We must admit the limits of tests and what they can measure. Moreover we should recognize that tests must be limited in scope. They can present and measure only a sample of the knowledge required for teaching.¹

Nor has there been much attention paid to testing for cultural awareness and sensitivity to ethnic and racial differences as essential teaching competencies for the modern teacher.

It is also important to point out that, as in other professions, the views of experts do and will differ on which program instruction and what sequence will best ensure the required basic knowledge. The development of competing theories and different methodologies has enhanced our search for quality in education. Tests that narrow the view of what is theoretically or methodologically acceptable may limit our discovery and dissemination of new concepts, insights, and developments.

Let me now return to the three different types of teacher testing approaches that, as I said early on, are raising some troubling issues. These were: (1) the use of tests to determine who can enter the profession, (2) the testing of graduates of teacher training programs to determine if that teacher education program should be accredited, and (3) the use of tests to determine if practicing teachers are competent and should retain their certificates. I will take them in reverse order.

Competency Tests For Practicing Teachers

The use of paper-and-pencil tests to evaluate accredited teachers is a mandated requirement in two states: Arkansas and Texas. In both cases, the requirement was enacted as part of

rather comprehensive educational reform laws. Practicing teachers, regardless of years of service and record, have to take and pass a competency test in order to retain their teaching certificate.

According to the new laws in these states, the tests are to be designed to measure "functional academic skills" or, putting it more bluntly, literacy. The imposition of such a requirement is without precedent in any other occupation.

The problem is not with the intent. Who can quarrel with the desire to ensure literate and competent teachers in our classrooms? The problem is with the means used to achieve that desirable end. The use of a mandatory one-time test to decide the professional fate of our experienced teachers is an injustice and a total misuse of tests. The Educational Testing Service recognized this in taking the unprecedented step, for a test development organization, of refusing to allow the use of the National Teachers Exam for this purpose in Texas and Arkansas. I do not think our profession has been quick enough or loud enough in joining ETS to protest this unjust action.

Testing Graduates To Determine Accreditation

The attempt to legislate excellence through teacher testing has led to a second set of educationally unsound laws, mainly the mandated testing of graduates to determine if the teacher education program they went through should continue to be accredited. This, too, is simply inappropriate and many of the educational associations testified against the use of teacher tests for this purpose. This practice is wrong on several counts. The most obvious is that it fails to recognize that, in the majority of cases, over three-fourths of the college preparation received by a prospective teacher is taken outside the school or department of education, mostly in the base disciplines.

To withdraw accreditation in teacher education for poor performance on tests that for the most part measure basic skills and general knowledge is illogical. However, that is essentially what is being done. In fact, in most cases, the section on professional knowledge is where teacher candidates consistently do better.

As the National Council for Accreditation of Teacher Education (NCATE) standards point out and require, the accountability for teacher

education rests with the total institution, not just the teacher education unit. Certainly, if large numbers of graduates of any particular program are not able to meet minimum requirements for certification, those programs should be scrutinized and reviewed. But the review process should conform to sound accreditation practice which should include external validation and the opportunity to correct deficiencies noted.

Finally, advocates for minority rights too have registered objections and questioned the validity of such tests on cultural fairness and job related grounds. These views need to be more carefully considered and listened to.

The higher education community needs to be heard on this issue. Unfortunately, my guess is that we have not been heard from because too many of us do not care enough about teacher education programs.

Teacher Tests To Determine Who Enters The Profession

This brings me to my final teacher testing concern: the use of standardized teacher tests to determine who enters the profession. The dialogue and debate over this development is especially revealing about where and how people line up on the issue of minority underrepresentation.

You will recall that nothing was more important to the success of the reform initiatives of the 1970s than teachers. Concerted efforts were launched across a wide range of federal program efforts to address teacher training problems. Some improvements and gains were achieved.

However, the fact remains that even with all those federal and state initiatives, the harsh reality is that currently minority teachers comprise only 12 percent of the teaching force in this country. Of that 12 percent, 8.6 percent are black, 1.8 percent are Hispanic, and Asians and American Indians represent less than 1 percent.² Most importantly, various research reports conclude that if there is no significant change in the current status, the percentage of minorities in the teaching ranks of this country will be cut in half to approximately 6 percent.³ G. Pritchey Smith's study of the impact of competency tests on teaching is even more pessimistic. He estimates that, given present trends, by 1990 the percentage of minority

teachers will be less than 5 percent.⁴ As Smith points out:

The competency testing movement will induce negative reverberations that will reach far beyond the single effect of excluding minority applicants from teaching. First, the presence of minority teachers contributes to the quality of education of all children in a pluralistic society. Whereas cross-cultural exposure for children of the majority population is an especially important factor in their development of healthy social attitudes, minority teachers as role models are essential to the minority child's learning environment. The reduction of the number of minority teachers to less than 5 percent will be especially untimely as the minority elementary and secondary public school national enrollment reaches 30 percent by 1990.⁵

The decline of minority teachers is taking place at the same time as the number of minority students in our schools is increasing dramatically; New Mexico and Mississippi already are over 50 percent minority. In California, Louisiana, Texas, and South Carolina, minority public school enrollments will reach 50 percent by 1990 and will reach that mark in Arizona, Georgia, Florida, North Carolina, and Alabama ten years later. California minority enrollments in the early grades are already over 50 percent, and in fifteen years the minority population in the entire state will be the majority.⁶ As Greg Anrig, the President of Educational Testing Service, points out:

The growing mismatch between the racial and ethnic composition of the teaching force and the racial and ethnic composition of student enrollment in schools is a matter with serious social and educational implications for the nation and its schools.⁷

The challenge we face, which cuts across all of these teacher testing activities, is straightforward—how do we address, through overt action, the legitimate concerns about improving the quality of public education even as we continue to increase the number of minority teachers in the profession? It is not an easy problem to solve.

The central concern has to be with the use of tests in making competency determinations about ethnic and racial minority prospective teachers. Although ETS has been diligent in its recent efforts to reduce racial and ethnic bias in the tests they develop, the fact still remains: standardized tests are normed primarily on white middle-class, non-minority test-taker populations. Therefore, the tests are more accurate and appropriate predictors of white student achievement potential than minority ability.

When we overrely on standardized tests to decide who is to be approved for certification and entrance to the profession, we assume first that the test is equally fair and appropriate for all. Secondly, that this paper-and-pencil test measures the right and appropriate kinds of things to determine the basic competencies needed to teach today's children in today's schools. Lastly, that tests are appropriate primary means for deciding who is competent to be a certified teacher.

I do not believe any of those assumptions are warranted. But my argument is not that we should not use tests at all. Rather, it is that we not overrely on tests and instead insist on taking a broader array of measures to make this type of critical determination. I am also arguing that there is no better substitute than the collaborative professional judgments of university and school site specialists about the potential of prospective teachers. Standardized tests can and should be used as part of all the data considered but kept in perspective. They must be used cautiously in reaching any hard and fast conclusions about the competency of minorities. When I argue for such a stance, please be aware that I am not arguing in favor of letting inadequately prepared minority teachers teach in our classrooms. What I am arguing for is a comprehensive approach that includes testing, the assessment of demonstrated performance in course work and in classrooms, and expert professional judgments in making the decision to certify a prospective teacher.

In too many cases, the decision to overrely on standardized tests for this purpose seems to have been made primarily because it was easy to justify to legislators and to the lay public. And it "showed people we were doing something," not to mention that it "looks so scientific."

A closely related development is the whole

prospect of moving to a national competency exam which Al Shanker [President, American Federation of Teachers], among others, has advocated. All of the reservations already noted about relying too heavily on a single test apply, and there is an additional danger. The push to a single national exam will inevitably tend us toward a "single ideal teacher training model" mentality in this country. Nothing could run more counter to the American teacher education tradition and mores of American education.

Putting personal bias on this issue aside, the more important aspect involves the equity concern. If we do move to a national competency exam for entering teachers in this country, how are we going to address the differential impact on minorities? Are we going to insist that the test measure ethnic and cultural awareness competencies? Who is going to decide on what test, and will that decision-making group be representative?

Concluding Comments

Summing up, then, the main point I have tried to make in my remarks this morning is that, in our rush to legislate quality in teacher education, we must not allow ourselves to shunt equity and access issues aside. The demographic realities across this land demand that we be more sensitive and responsive.

I do not have to tell this group how dramatic are some of those demographic changes that have taken place in our schools. Many Americans welcome the new look—the cultural enrichment potential of our newfound diversity. Many examples abound across the landscape of public schooling as to how this new diversity is being incorporated, at times even eagerly, into the range of American educational experiences.

However, we all also know there are too many other examples of how our schools and our school people are not well prepared for the new diversity, of the continued inability of too many school places to respond adequately to the needs of minority students. The achievement gap between majority and minority students continues to be far too great. Sadly, as the Achievement Council of California in their recent report pointed out:

Rather than chipping away at the often significant differences in preparation and skills among entering students,

our educational system perpetuates—even enlarges—these differences. The achievement gap between poor and rich, minority and majority actually grows as students progress through the elementary and secondary grades. . . .

The report goes on to chronicle the specifics of the gap and concludes: "To our dismay, there is little evidence that these patterns are changing or that they will change in the foreseeable future."⁸

That, my friends, is the concretely stated nature of our collective challenge. We must endeavor to prove wrong the growing evidence about the inevitability of that foreseeable future. I am hopeful:

1. That we will, for example, make the drop-out rate of Hispanics and blacks in our public schools the highest priority concern around which universities, community colleges, and public schools can rally and join forces to effect the desperately needed reforms.
2. That we can increase our efforts to improve the performance of minority high school youth in math and science.
3. That we can collaborate on the initiation of joint university access bridge programs for junior and senior minority transfer students from the community colleges.
4. That we can collaborate across levels in organizing role-modeling efforts and curriculum-enrichment programs.
5. That we can increase the numbers of talented minority youth going into teaching.

What is important is not the specifics of what we do—I gave only a few examples—but that we return to the unfinished agenda. Given the demographics we cannot afford not to. I fervently hope the Chief State School Officers of America would agree.

Thank you.

STEPHEN KAAGAN (Commissioner of Education, Vermont): Twelve percent of the teaching force are minority. Why don't we use the funds we spend on teacher testing to attract minorities instead? Why don't we be bolder than we have been in creative uses of the allocations of our resources?

DR. ARCINIEGA: I agree with the thrust of your concern. We so need to be much bolder

and more creative in our use of limited resources to ensure that equity concerns are not shunted aside in the current national debate over quality concerns. I don't know why we haven't been more effective. We certainly can and need to be more creative in using tests along with other measures to encourage, attract, and screen-in minorities to the teaching profession.

HAROLD EICKHOFF (President, Trenton State College): Would you classify Albert Shanker [President, American Federation of Teachers] as a person in the ranks speaking to this issue?

DR. ARCINIEGA: Yes, and he certainly has spoken to an important dimension of the issue.

GERALD N. TIROZZI (Commissioner of Education, Connecticut): I agree with the concept of overrelying on tests. A number of speakers this week have stated their views on key elements in teacher competency. Shanker's point is that competency testing tells you who is illiterate. Ernie Boyer [President, Carnegie Foundation for the Advancement of Teaching] emphasized subject area knowledge and the quality of being an authentic human being. Frank Newman [President, Education Commission of the States] emphasized the role of states and the capacity for exposé. Bud Hodgkinson [Senior Fellow, American Council on Education] mentioned the "John Dillinger approach." I think to be a good teacher you have to be an educated person. The real issue is equal access and equal opportunity. Connecticut will be giving such tests this year. How do we resolve the fact that teachers and professors give passing grades to those not qualifying? We do a disservice to minorities by lowering standards. The positive side of exposé is to reveal what went wrong along the way.

DR. ARCINIEGA: I would agree that we need to ensure that minorities and all others entering the profession meet our high standards and expectations. However, the key issue revolves around how we can best evaluate the people we need to screen-in. By that I mean simply ensuring that our tests and other measures of evaluating candidate and teacher performance are fair and appropriate. If you

agree that the use of a particular paper-and-pencil test is more fair and accurate a measure for one group than another, then we should not overrely on that measure in making decisions about the suitability of individuals in the group for which, by definition, the measure is not equally fair and/or equally accurate. But that is not what we do, is it? So it really isn't a matter of "lowering standards" either. And finally, it is important to underscore that nothing in what I have said should lead you to conclude that I condone giving passing marks to anyone who doesn't measure up no matter who he or she is.

CALVIN M. FRAZIER (Commissioner of Education, Colorado): The system itself is under attack. The public realizes there are problems. Collaborative effort comes after the realization of the implications for society if we don't act on them. That is when we can do something about the unevenness of distribution of resources. Is this a logical conclusion?

DR. ARCINIEGA: Yes, I agree wholeheartedly and would underscore the latter part of your point. Nothing will happen in the direction of including equity concerns in the ongoing efforts to reform public education if we cannot make people realize the implications for society of the changing demographics and the stake we all have in enabling greater numbers of minorities to succeed in our schools.

CHARLIE MCDANIEL (Superintendent of Schools, Georgia): For about a century we have been testing youngsters. CCSSO agreed on assessment. But did teachers know enough content to teach? Will we all get on the "railroad train?" Teacher testing does give us a legitimacy we have not had. Do you use SAT scores on your system for admission?

DR. ARCINIEGA: Let me take your last question first. Yes, in the California State University we are required to admit only the upper third of graduating seniors. We determine the upper third through SAT or ACT test scores and their grade-point average.

Regarding the basic concern of the first two questions, I am certainly an advocate of teacher preparation programs which ensure that teachers know the content they are asked to teach. I should remind you that our state has had a five-year teacher preparation model

in place for fifteen years. However, I am certainly not in agreement that teacher testing will give us "legitimacy," as you put it.

DR. KAAGAN: I never thought I would be on the other side of the testing issue from Charlie McDaniel. I am not in favor of teacher testing; it separates winners from losers. It is not a good way to signal public policy, nor is it a good allocation of dollars. May I have your comments and reactions?

DR. ARCINIEGA: As you may have anticipated from formal remarks, I agree with you. It may be a handy and easy political way to ride the crest of the "public sentiment wave," but I don't believe it is the most responsible way to address the problems we face.

GORDON AMBACH (Commissioner of Education, New York): Entry level control issues concern a mix of assessment and judgments. Expand, please, on the entry level "mix" that helps us find the solutions.

DR. ARCINIEGA: Although this is not the place to get into specific models, let me simply point to a number of the essential elements in a proper mix of assessments and judgments. To begin with, we need to aim toward constructing a profile of attributes that will give us a sound basis for judging the suitability for teaching of the prospective candidate; i. e., intelligence, cultural sensitivity, commitment, interest in children, openness and caring as a human being, ability to relate and interact with children and young people, etc. The assess-

ment and the building of that profile of judgments is a thoroughly professional undertaking which can best be accomplished by the faculty and the participating school practitioners in the locales where we propose the teacher preparation is to occur. The process itself needs to ensure a proper place and function for interviews by your team of professionals, transcript evaluations, evaluation of successful experiences with children and young people, etc., as well as evaluations of standardized test score data.

MR. AMBACH: We are indebted to you for a cogent and thoughtful presentation.

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CASE STUDY: CAREER LADDERS LEGISLATION IN SOUTH CAROLINA

**The Honorable E. Crosby Lewis
Member
South Carolina House of Representatives**

The creed of economic America is scored by words such as *laissez-faire*, entrepreneurship, competition, open market, and supply and demand. With these concepts knocking around in our brains and before us daily on the television and in the press, is there any wonder at the public concern over reports that public school students in America trail those from a growing number of nations; that student performance is dropping, not rising; and that children who cannot read and write beyond the elementary school level are getting high school diplomas? This concern with poor student achievement in the United States was officially documented by the report of the U.S. Commission on Excellence in Education entitled *A Nation at Risk* in April 1983.

In 1983 in South Carolina the public had lost its confidence in the ability of our public schools to produce students capable of competing with the technologically advanced nations of the world, and in many schools in my state, to even teach the children to read and write sufficiently well to get and hold a job. In 1983, South Carolina suffered at the bottom of most national educational surveys. It ranked forty-fifth in average teacher salaries, four thousand dollars below the national average. Its young men failed the armed services exam more frequently than those from any other state. It ranked fiftieth in per pupil expenditures. Out of sixty-two thousand students who entered the public school system in 1970-71, forty-two thousand made it to the twelfth grade. The average teacher scores of South Carolina students on the Comprehensive Tests of Basic Skills (CTBS) were below the national average in almost every category. Twenty-nine percent of the first-graders did not have the necessary skills to enter the first grade. More than nine hundred teachers were teaching without a bachelors degree. Is there any wonder that the competency of our teachers was questioned?

National polls indicated, however, that the public and its governmental leaders were aware that the answers to the problems of international competition and the lack of connection with the system by at-risk youth must come through an effective, well-prepared, and well-equipped system of public education. These same polls found that, although discouraged in increasing numbers, Americans are still prepared to accept an increase in their taxes to pay higher teacher salaries and to spend more money on school facilities, if they could be assured that the system called public education would produce results. South Carolina was a microcosm of that attitude.

In 1984, however, something unusual happened in the Palmetto State. God answered our prayers. In that answer came a governor who had the wisdom to work on the cause, not the effect, of progress. Dick Riley led South Carolina in attacking the root of our problems, the lack of educational quality. Under the leadership of Governor Riley and our fine State Superintendent of Education, Dr. Charlie Williams, a program of educational reform prepared in large measure by Dr. Williams, and subsequently refined by the blue ribbon committees and the legislature, was carried to the people in a grassroots campaign. The focal point of this reform was a piece of legislation containing sixty-one new and modified programs funded by a committed one-cent sales tax. The motto of the campaign appropriately was "A Penny for Your Thoughts."

When the bill was introduced, every legislative leader and every poll predicted its overwhelming defeat. One poll of House members was thirty for, ninety-four against. Eleven weeks of debate later, we had passed the entire proposal, together with tougher standards in every area, especially those relating to accountability, evaluation, and promotion. It was a magnificent team effort: educators, parents,

businessmen, businesswomen, and politicians all working together to help our children.

I have been invited to talk with you today on the incentive pay proposals mandated in this act. In order to present what we propose in that regard, it is essential that you understand the legislative intent behind that act and why we believe that the career ladder and one or two of the other bonus incentive pay proposals will work in South Carolina despite the dismal history of such plans across the nation. One cannot separate the incentive pay program from the other aspects of the South Carolina Education Improvement Act of 1984, for they mesh and interrelate. Professionally and politically, they support each other, and therein we believe lies the greatest strength of this act and the potential for a successful incentive pay program.

A Comprehensive Reform Program

This act attempts to bring comprehensive reform to all areas of our public schools that were failing to provide quality and excellence in the education of our children: Reform in that it provided for the creation of a deputy superintendent of education to be in charge of a new division of public accountability, which on a day-to-day basis would oversee the implementation and assessment of the provisions of the act. Reform in that it abandoned business as usual, determined that inadequate pay for our teachers was no longer acceptable, and mandated that the average state teacher salary be brought to the southeastern average and maintained at that level. Reform in that the leg irons of prejudice and incompetency, which had held our children back since the U.S. Supreme Court decision in the case of *Brown v. Board of Education* were attacked by a massive \$60 million compensatory and remedial program for our weakest students. Reform in that it provided for state intervention in districts where the quality of education is seriously impaired. Six districts have been so designated the first year. Reform in that it mandated extensive and detailed accountability in teacher, administrator, school, and district competency.

Teacher competency was a point of major debate in the blue ribbon committees and in the legislature. Many who supported the bill, including myself, felt that the teacher pay increase should also have a component based on an incentive program. The most cursory in-

spection, however, led us to the conclusion that there was no way to develop a feasible program within the legislative time constraints. Consequently we settled for provisions which provided for the development and implementation of an incentive pay program by 1986-87. Needless to say, this portion of the act created one of the few areas of disagreement within the team.

However, during the legislative debate, firm concessions were obtained from the teachers' associations that incentive pay would be part and parcel of the act. A twenty-five percent increase in the sales tax, totalling nearly \$1.5 billion over the next five years, was committed to these programs by extraordinary statutory language; that is, it took a two-thirds vote of all members of the House and Senate to amend that provision. That act was not easy to pass. The teachers, their associations, the administrators, the parents, and the public were aware of the commitments made by all parties. Everyone, obviously, is not happy with every portion of the act. In fact, who wants to vote for a major tax increase in an election year?

It is of course news to no one that a perfect merit pay system has not been developed. Everyone is also aware that perfection is to be sought and never achieved, and whether the field is medical science, space technology, or running this country, no perfect system has been devised despite the billions that have been spent and the human genius that has been applied. However difficult and disappointing the results may have been to those who sought a perfect solution, one cannot but stand in silent and reverent awe before the Bill of Rights, or whisper a silent prayer when microscopic surgery permits a grandmother to see the face of her granddaughter for the first time, or feel the tingle of pride when an American astronaut steps unattached into space. Now are the priests of the temple of knowledge prepared to say that they can teach others to attack the frontiers of uncertainty and difficulty, but they cannot, nor should they be asked to do so?

Uncertainty and difficulty may be words not strong enough to describe the task of developing a workable system that rewards the effective teacher and motivates those less effective. The challenge was most reasonably described in the question asked by a teacher responding to a school board poll, and I quote, "How do

you determine the effectiveness of an advanced placement chemistry teacher versus the effectiveness of a special education teacher who works with five severely handicapped students?" The answer is not easy, but more than seventy percent of South Carolinians, almost the same percentage as other Americans, believe that all teachers must be held accountable for the money spent on their salaries. I believe that we who support education and those of us who are educators must realize that we can no longer hide behind the uncertainty and the difficulty of assessing effective teaching performance and rewarding it.

To do so in South Carolina will collapse a wave of public support and leave public education stagnating in the pool of professional mediocrity and public cynicism again. A profession which cannot define excellence and judge it deserves its mediocrity. Those who fail to find a way to reward excellence will surely live without it. Considering the proliferation of computers, their ability to assimilate vast amounts of data, and the capability of programmers to design tasks that less than ten years ago would have been financially and interminably difficult, the output-of-performance concept, as an objective method upon which to base merit pay, has taken on new significance.

Despite this progress and the expansion of standardized achievement testing, we are not quite at the point where we can, like the major news networks, project our election winners on the basis of patterns from past elections and the very earliest results. Although I believe that the facility that the computer brings to the audit and evaluation of elementary and secondary education will make it the most significant educational tool since the printing press, we are not yet in the position to proceed without the input of subjective evaluation.

Speaking as a former state board member and as a legislator, I have observed, that despite the researchers' conclusions, one of the major concerns of teachers is their paycheck, and there is nothing wrong with that. I was raised to respect and honor the work ethic, and experience has taught me that it is better to get paid more than less. This nation has a special place of honor for those who contribute unselfishly to the welfare of their fellow men, but paradoxically this nation also measures prestige by the amount of the paycheck. In preparing for this talk, I came across an

interesting article on a poll taken by the *American School Board Journal* in May 1983. This poll, surprisingly to me, stated, "A clear majority, 62.7 percent of teachers responding, agree that teachers should be paid according to how well they perform in the classroom." This survey confirmed my belief that most teachers, once past the negative reflex on hearing the words "merit pay," do believe that teachers who are more effective in the classroom should receive larger salaries than teachers who are less effective. We in South Carolina are endeavoring to establish a system that can equitably and efficiently achieve that end.

The South Carolina Education Improvement Act provides that the State Board of Education, with the assistance of the Legislative Oversight Committee, known as the Select Committee and especially created by the act, will develop and implement a teacher incentive pay program to reward teachers who demonstrate superior performance and productivity. This act provides a schedule for compliance which allows two years for the development and piloting of three different programs in nine school districts. Incidentally, the Education Improvement Act also mandates evaluations of principals and administrators and the development of an incentive pay program for them.

The schedule provided that by October 1984 (the act became law in June 1984), a broad-based teacher incentive advisory committee would be formed to advise the State Board on development and implementation. This committee was to be composed of teachers, principals, superintendents, and Board members. The chairman was to be appointed by the Governor. During school year 1984-85, the State Board was to develop and select three programs. These three programs will be pilot-tested in nine districts in the 1985-86 school year. The State Board of Education, with the advice from the Select Committee, will choose a single merit system for state use. Beginning in school year 1986-87, funds for the teacher incentive program chosen will be distributed to the school districts on a per pupil basis. No district will receive funds that does not have an incentive program approved by the State Board.

The three incentive pay programs recommended by the advisory committee and approved by the State Board of Education for pilot testing are the Bonus Model, the Career

Model, and the Campus/Individual Model. The Bonus Model and the Campus/Individual Model are similar in that the criteria for the Campus/Individual Model are almost identical to those of the Bonus Model. The Bonus Model is supervised by a local Bonus Incentive Committee, which at the beginning of the year sets the programs standards and screens all applicants. I have provided you with an outline of the models and will quickly go through them with you. We welcome your criticisms and comments.

Early in the year the committee or its representatives meets with the approved candidates and sets objectives and plans for the year's activities, and finally late in the year the Committee conducts an exit interview to evaluate the candidates' performances. These three bonus models were composites of models recommended by the districts that applied for grants to develop the models, or in some cases were already operating some type of model. The final model, of course, will derive from the pilot tests that are being conducted now.

The Bonus Model

Candidates for the Bonus Model must meet the following eligibility requirements:

Professional Status. They must have continuing contract status and be a full-time classroom teacher, librarian, or guidance counselor.

Attendance. Candidates must agree not to be absent for more than five days, except for certain exceptions.

Performance Evaluation. Each candidate must agree to a district evaluation based on statewide criteria mandated by the Education Improvement Act, which became effective for the first time in 1984-85, and which required that a third of the teachers be evaluated every year. This would require an agreement by those who apply to be evaluated ahead of time under the provisions of that act.

The evaluation of the successful participant would require a rating of superior. The initial plan developed by the candidate must contain three components upon which the candidate

will be judged under a 100-point system. The components are:

Self-improvement, twenty to twenty-five points. Self-improvement activities must relate directly to enhancement of teaching effectiveness.

Extended service component, twenty to twenty-five points. These services promote cooperation among colleagues and the collective good of the school district. You will note in your appendices that there is an outline of suggested activities for both of those.

Student achievement, which in the bonus model accounts for fifty to sixty points. This requires that a candidate develop a portfolio of achievement-related materials demonstrating superior student achievement during the year.

There is a listing of various tests that may be used to indicate achievement. Although we do have quite an elaborate testing system in South Carolina, it is relatively new. As I said earlier, neither this testing system nor our expertise has reached the level where we could use it as an absolute objective analysis in trying to meet this particular portion of the evaluation. A technical assistance team from the state will assist the local committee in assembling and analyzing the test data. We believe that teachers who earn rewards must be demonstrably superior, which requires valid measures of teaching results and assessment measures that are objective and consistently applied.

There is an award process in which a monetary sum is pro-rated among all winners. It is estimated, based on the criteria used, that approximately twenty percent of the teachers should qualify under the Bonus Model. The recommended stipend is from \$2,000 to \$3,000.

The pilot also calls for non-monetary or psychological incentives. These are to be developed along with the suggested guidelines as shown in the example in the packet. Whether you agree with the concept of motivational hygiene or not, it is clear that money is not the only incentive that motivates. There is an appeal process under this provision under which the candidate may appeal first to the Bonus Incentive Committee, then to the Superinten-

dent of Schools in the district, and then to the local district board of trustees whose decision would be final. The State Department will assign technical assistance and evaluation teams to assist the local districts in their operation of the pilot programs.

The Career Ladder Model

The Career Ladder Model will likewise operate under the supervision of a local committee in which there is substantial teacher and principal participation. The committee will work with the evaluation and technical assistance team from the state. Proposed in this plan are three career levels. Each level has similar eligibility provisions to the Bonus Model. There is professional status where the teacher must have continuing contract status; the attendance agreement where the teacher in the first level agrees to no more than six absences, with the exceptions that are listed; and the performance evaluation agreement in which the teacher agrees to undergo a performance evaluation that meets the requirements of the Teacher Educator Evaluation Act.

In both the Bonus Model and the Career Ladder Model, the teachers must obtain a score reflecting superior performance. As in the Bonus Model, the Career Model requires candidates to obtain at least X number of points in self-improvement activities. The following are the criteria for Level One:

Self-improvement activities. Four points for activities directly related to enhancement of teaching effectiveness.

Extended service (which also follows the criteria of the Bonus Model). Candidates must obtain six points assigned to services that promote cooperation among colleagues and the collective good of the school district.

Student achievement. Same as the Bonus Model. It is to be based on a portfolio of materials developed by the candidate to demonstrate superior achievement by students during the year.

The recommended salary bonus in Career Level One is \$1,000 to \$1,500. All career levels are validated and approved annually. Career Levels Two and Three are the same basically

as One, except that they require a point increase to reflect greater effort and accomplishment, and candidates must have at least eight graduate hours, including six in certification. Level Two recommends a salary bonus of \$1,500 to \$2,500. Level Three requires two successful years at Level Two and agreement to absences of no more than four days, with exceptions, and requires increased points on self-improvement and extended service. Level Four recommends a bonus or incentive of \$2,500 to \$3,000.

The Career Ladder Model calls for an assessment process. The Career Ladder Committee will evaluate the candidates, and all candidates qualifying must submit a packet of materials similar to those in the Bonus Model, including documentation of professional status, intent to meet attendance requirements, and requirements for performance evaluation; a proposed self-evaluation plan; and a proposed extended service plan. The committee will review these plans and documents and counsel with the candidates, in a procedure similar to that in the Bonus Plan. Levels Two and Three have fast-track provisions that state under this option that years of experience may be waived by candidates if they have an adequate level of approved educational credits. This provides an opportunity for a candidate to move immediately into Level Two and Three in the first year. The model calls for non-monetary incentives, as did the Bonus. It also provides an appeal process.

The Campus Model

The Campus Model provides for a third of the funds to go to the districts for meritorious schools and for two-thirds of the funds to go to individual bonuses. It is almost identical to the Bonus Model for individuals; however, in the campus part it establishes a special incentive plan to reward staff members in the schools that show the greatest growth in student achievement.

The selection process is objective and all schools are eligible. Schools compete against themselves on the basis of student achievement measured by CTBS and Basic Skills Assessment Program (BSAP) scores or other standard achievement battery tests. Schools exceeding projected levels based on a multiple regression formula will be eligible. By this statistical procedure, it is possible to predict fu-

ture test scores from past test performances together with other characteristics of the students in the group.

Regarding staff eligibility, as in other models, only continuing contract teachers are eligible, and they must pass an evaluation with no less than (and this is slightly different) a total satisfactory rating on the evaluation. Students whose performance will be judged under this process are those enrolled at the end of the forty-five day period, those with required test scores, and those eligible to be tested (that is, not the handicapped students). This concept is designed to encourage all teachers in the school to work together to influence positively the achievement of the largest number of students. Finally, the school must receive a superior evaluation to qualify. In all other respects, this model is similar to the other models.

These three models represent composites of the better features of the plans developed by the school districts throughout the state. Incentive pay in South Carolina is not an end unto itself. It is a part of a broad array of programs whose goals are multiple, to improve teaching and to improve student achievement. A quick list of programs to assist teaching enhancement, as provided in the Education Improvement Act, are these:

Base average salary raised to the southeastern average.

Secondary schools and colleges mandated to stress teaching as a career opportunity.

Cancellable loans for teaching degrees in critical areas, which may be forgiven at the rate of twenty percent per year.

Creation of centers of excellence for teaching.

Implementation of inservice training programs by all districts by 1986-87.

Tuition reimbursement every two years for advanced college hours in the area of certification.

Reduction of classroom paperwork by use of computers. Remedial assistance to teachers with evaluation deficiencies.

Teacher competitive grant programs for improved teaching practices and procedures.

The Honorable Newt Gingrich, a member of the Inter-Governmental Advisory Council, in submitting his comments on teacher preparation, asked that they be measured as if he were a college teacher, not a politician. In contrast, I would ask that you measure my remarks as if they came from one of the politicians referred to by our Executive Director, William Pierce, when he said, "Unique to the current reform movement is vigorous participation by non-educators as well as educators. Governments, legislators, business people, and parents have joined school people to improve public education." We intend to have an improvement in public education in South Carolina, and we are going to get it with or without the educators.

WAYNE TEAGUE (Superintendent of Education, Alabama): We have recently passed reform legislation very similar to yours, it seems, in the Career Ladder Model. Do your requirements for moving up the ladder have anything to do with degrees at all, or is it based purely on performance?

MR. LEWIS: Of course, our basic salary schedule is based in part on the level of degree that the teacher possesses. The career ladder and both of these plans do have a component that evaluates the teacher's involvement in the community and professional development, including further education. So additional college credits would be a factor in the evaluation of that teacher.

JERRY EVANS (Superintendent of Public Instruction, Idaho): At the end of your pilot testing, do you plan to continue the three models or select the best of the three?

MR. LEWIS: Theoretically, we are going to pick one of the three, but we obviously will enjoy the benefit of the mistakes and suggestions that arose out of the pilots and try to

take advantage of them when we select the model that will be used on a permanent basis. One of the big questions is, "Will the pilots give us sufficient information to go forward by the implementation date of 1986-87?" The act mandates it.

FRANKLIN B. WALTER (Superintendent of Public Instruction, Ohio): Is it your intent that only twenty percent be superior teachers, or is it possible that eighty percent might deserve this rating?

MR. LEWIS: That is an issue of debate right now among the people putting the proposal together. I believe we are going to have to put a cap on it, if we are going to maintain the dollars at a level that would be attractive. However, during the development of these plans, some people felt that the criteria established a level of difficulty that would only eliminate about twenty percent of the teachers as candidates.

DR. WALTER: Will the one-cent sales tax increase provide sufficient funds to increase the average state salary to the needed level?

MR. LEWIS: That is a good question. The Education Improvement Act that we passed in 1984 mandated that the teachers' salaries be brought up and maintained at the southeastern average. We finance public education out of the general fund, in large measure, except for this special act that we now have. In 1984, in addition to the money that the one-cent sales tax brought in, we also raised out of general revenues about \$60 million, which maintains an inflation factor that we were trying to bring to our foundation. Out of that money, funding goes to teacher salaries. So, if the state general revenue fund is not sufficient to bring it to the southeastern average, then the money out of the Education Improvement Act would. The reason that is an interesting question is that I do not think we have resolved what is going to happen down the road if the legislature fails to provide the funding out of general revenue, which would normally keep our foundation at a certain level with the inflation factor. That is, politically, if the legislature gets in trouble for money, it cannot interfere with this plan because it is locked in with very difficult statutory language. Parliamentarily, they cannot get into it. But on the other part

of the bill, with a simple majority vote, they could stop allocating sufficient funds to maintain salaries at the southeastern average. Then we would have to move into the Education Improvement Act, take money out of programs like incentive pay or the other programs of excellence, some of which I have described here, to bring salaries to the southeastern average. That is an issue that is yet to be decided in the legislature.

DR. WALTER: Are all of these programs one hundred percent state-funded?

MR. LEWIS: All the programs are one hundred percent state-funded; that is, all the money comes from the state. There is debate whether we have fully funded the programs we have mandated, of course. We do have a provision in the bill that the local districts have to maintain the level of support that they had in 1983-84, and do it at an inflation rate that equals the national rate.

ROBERT BENTON (Superintendent of Public Instruction, Iowa): Without arguing the merits and demerits of a merit pay plan, after you get your plan in place, are you going to make any attempt to determine whether a merit pay plan such as this has positive impact on student achievement? Is there a research model that you are thinking about to determine the effectiveness of this plan, or is it just going to be in place on the basis that you think it will do a good job?

MR. LEWIS: I do not think the research model is defined and described, but the act that we passed mandates a tremendous amount of accountability and assessment. I think that is probably one of the unique features of the act—that throughout, it calls for accountability and assessment, including the establishment of the special division of accountability by the State Board of Education on the implementation and development of this legislation. The Select Committee, which I chair, oversees the act to ensure that it is developed and implemented in accordance with the general legislative intent. I think the time will come when that assessment will be called for and a specific model will have to be adopted. I think it is fair to say that we are maintaining within the State Department an elaborate assessment of student test scores, but as for the

impact of the incentive pay program on teacher evaluation, that model has not been developed, but I think it should be and will be.

DR. BENTON: With this vast array of reforms, you may have a hard time determining whether merit pay specifically has any impact on student achievement.

MR. LEWIS: The opponents of merit pay or teacher incentive pay have historically taken the position that the programs for incentive pay have not been broad enough; they have been too focused on teachers, teacher evaluation, and teacher output. What we have tried to do with this act is provide a vast comprehensive network, a vast array of programs other than just student achievement or just teacher evaluation. We are trying to assist the teacher in his or her development; we are trying to assist the children in their development. Frankly, I do not care where it comes from as long as we get improvement in student achievement. My concern is with the student and not with the teacher, although I am a strong supporter of teacher salaries in South Carolina, and considered a teachers' man. If it comes to a vote between the teacher and the student, as far as the end result is concerned, I will be on the side of the student.

GORDON AMBACH (Commissioner of Education, New York): At the end of the 1985-86 school year you and your colleagues will have an interesting choice among the three models. Looking at them from the point of view of the state legislature, my assumption was that with each of the three models you would be committing approximately the same total amount of money, so the choice you would make is not based on relative cost of the models, but on which one is the most effective.

MR. LEWIS: That is correct.

MR. AMBACH: I am curious about what you and your colleagues suspect you will be looking for as the key difference in results among those three models. What will make you choose one over the others? Would it be pupil achievement, how the teachers feel about the models, how the administrators feel about them? What will the bottom-line criteria be?

MR. LEWIS: I do not know that we have the answer to that other than improved student

achievement. Whatever we implement will still be in the nature of a pilot until we get enough of a track record to look at it. I understand, for example, that North Carolina has mandated implementation of a career ladder this year and they have a four-year pilot. We will implement the one of these three programs that is judged best by the State Board of Education with help from the blue ribbon committees and people who are involved in it. Out of that will come a fast-track pilot, in other words, a pilot that goes into effect, and we will develop it from there. You must understand that in South Carolina (and from what I read, there is similar feeling across the country), the public feels that the educational establishment has had long enough to work this out. Concerning the money that everybody is saying has to be put into public education, they are saying, "OK, we are willing to put the money in, if we can have some assurance that it is working." Well, the educators come back with a question like yours, "How are we going to get the assurance?," and the public says, "That's your problem." What we are doing in South Carolina is responding to the public pressure that there be some system instigated to evaluate and assess teacher competency. That is where we are going.

The program will still be a pilot, even when implemented on a statewide level. As a matter of fact, there will be a strong impetus by many people who do not want to spend money on public education to carry out the selected program in maybe half of the districts in the state.

RICHARD A. BOYD (Superintendent of Education, Mississippi): Our legislature has mandated a statewide plan that was recommended to them. One of the great issues facing the task force working on the plan is how to develop a plan that can be uniformly applied across the state. Your expectation is that roughly twenty percent of the teachers will get the merit pay. That expectation assumes that you have about the same composition of the teaching force across the state. We all know that is not true. If you give twenty percent merit money to each district, in fact some districts have a greater or lesser percentage of teachers who will qualify. What guidance would you give us?

MR. LEWIS: The plans provide that the districts are going to do the evaluations, based on statewide criteria. It is possible that the teacher

who is evaluated as superior in one school district may not be able to qualify in another school district. We think that is about as close to equalizing the plan as we can come.

SAUL COOPERMAN (Commissioner of Education, New Jersey): I sure do not have the answers either; they are so hard to come by. One of the things I struggle with when we talk about merit, is "What is good teaching, and do we know it when we see it?" Your plans give points for activities that are ancillary to the classroom. My concern was that the measurements appear to be quantitative, that the local district will do the evaluating, and that many of these activities are outside the classroom. Is there any correlation between what happens in the vast array of activities and how they affect teaching? I was talking to Charlie [Charlie Williams, Superintendent, South Carolina] at lunch, and I am extremely impressed with what you are doing with the Hunter Model. Would not that be more effective than a model that emphasizes those ancillary activities?

MR. LEWIS: We do not have the answer. We have determined that we are going to begin with a pilot, and conduct it until we get to a level with which we are satisfied. Obviously, we never will be, but at some point we will either make a determination that we have found enough to continue the pilot, or we will abandon it. I am not working on it day-to-day, so I cannot respond technically to you. But, speaking from a policy standpoint, we have decided we are going to do it. The people that supported this plan and the public, outside of the educational establishment, feel so deeply about improving education in my state (and I get the distinct impression that this feeling is widespread in the country) that we felt we would lose their support if we did not start dealing with it. Now, maybe we have not dealt with it in a competent manner, but we have done the best we can. We began the pilot and will proceed with the pilot and the test until we can decide to go forward with it or abandon it.

CHARLIE G. WILLIAMS (Superintendent of Education, South Carolina): The first step of the plan is an evaluation of each teacher in the classroom, including at least three visits to the classroom by observers. The individual being considered is evaluated in performance in the classroom and in relation to a set of criteria

determined by the state. The instruments may be developed by the local school district. After that we document student achievement. There is some flexibility in this part because of the difficulty in measuring achievement in fields such as art and music.

DR. BENTON: You have already noted what appears to be one of the difficulties in the timetable you are working with. You have several pilots going this year; obviously, most of the year will have to get by before you can evaluate those pilots. In the meantime, you may have great difficulty in getting the other school districts ready to implement by the 1986-87 school year. Do you have any plans to get a legislative reprieve on the timetable for this reform, or does your committee have the ability to make that decision?

MR. LEWIS: That would take an amendment of the act, but I do not think it would be a problem. In view of the enthusiasm for this program among the bill's proponents and the legislature in general, I think we will not have any trouble postponing that implementation date or modifying it for the districts.

STEPHEN KAAGAN (Commissioner of Education, Vermont): At times you talk about the relationship between the political process in your state and the educational community. Do you have any recommendations for us about how to improve that relationship? There seems to be some antipathy in your state, and, I think, in many others as well. How can we bring about greater partnership, cooperation, and collaboration?

MR. LEWIS: I do not know how it is in your state, but I read you a list of problems that we had with public education in South Carolina, starting with the SAT scores, right on down the list. We want them corrected. We would like the educators to tell us what to do to correct those. That is the main thing we want to do, and we want to work with the educators. We do not want to pay teachers who are incompetent. My subcommittee of the Ways and Means Committee has oversight responsibility for the Commission for the Blind in South Carolina. Those people do one of the the most magnificent jobs in the state with the funds we give them. It is fantastic. If I could give them twice as much money, they would do four

times the work, because they have the knack in that agency.

Yet at the same time, we have these big demands by public education. I mean big demands. The Commission could take \$100,000, and that would be giving them the world. But public education takes \$100 million. That is the problem we deal with as legislators when education people come to us and say, "We need to do something about this problem." We say, "What is it going to cost?" When they say, "It is going to cost \$100 million," we want to jump out the window. They say, "Look at our test scores. Look at what our children are doing. What about those teachers who can hardly read or write and do not have basic skills. What are you doing about them?" So we are left in a state of frustration.

The answer to your question, which I think is very topical and very important, is that we must figure out a way to do a better job in educating the legislators and probably the U.S. Congressmen too, on how they can work within the field of education, and where they can be most effective, so that we do not get a reflexive response of "We must have incentive pay, whether we know if it works or not," because that is what we have now. We are going to put it in out of a sense of frustration that we do not know the answer of how to measure teacher performance. I think that is a very good question. We must do a better job.

When the bill was introduced in the legislature in South Carolina, it went to the Education Committee, which voted for all the points in the bill, but made no recommendation on the penny. In other words, they did not have the guts to say how we were going to fund it. The Education Committees in the House and Senate in South Carolina are not as effective in education as are the Finance Committee and the Ways and Means Committee. That is not the way it should be. Somehow we have to develop a closer rapport—we must find a better way for the two groups to work together.

DR. WILLIAMS: Let me mention something that was alluded to earlier, but was not elaborated. The plan for reform in this instance emanated from the education community, not the legislators. The superintendents had reviewed a plan, reacted to it, added to it, and taken away from it. We were fortunate that we were able to go to people like Crosby Lewis, who had already read the future (this was be-

fore *A Nation at Risk*), and took education on as a specific cause on behalf of the state of South Carolina. So we had an educational leadership that had recognized this problem and had already put into place a proposal that was revised and improved as it went along, as compared with other instances where the legislature perceived the problem and the answer, and in turn, had to bring the educators in. I would not miss the opportunity to reassure Mr. Lewis that we are going to solve this problem either because or in spite of all this help.

MR. LEWIS: I am waiting for it.

DR. TEAGUE: Thank you, Crosby, for that excellent report. Before we end this session, I would like to say that it disturbs me that while we are setting up new pay schedules, incentive pay plans and so forth, we still hold on to the antiquated way of rewarding teachers, based on degrees and experience, neither of which makes any difference in how children learn. At least I cannot find any research that says it does. The reason I bring this up is because in our plan in Alabama, at my insistence, teachers entering the profession in 1987 and thereafter will proceed up the ladder without any recognition of experience or degrees, but purely on the performance rating that we have devised. Only at the master teacher level, which is our final, top level, do we require a master's degree. This is for one reason, that the job description for that position is different from the other teachers' job descriptions. It is my contention that as long as the job descriptions are the same, and the research does not show any difference resulting from degrees or experience, then these should not be rewarded. That is why I stay in trouble at home.

JOHN H. LAWSON (Commissioner of Education, Massachusetts): We have a \$2,500 incentive plan for selected teachers that was just passed in Massachusetts. The only difference is that the local school board and the local teachers through their union association will essentially negotiate the way teachers are selected. Teachers will primarily be recognized at certain levels for performing extra duties that their local school boards want them to perform. There are several states doing the same sort of thing.

DR. TEAGUE: There are about forty states doing this kind of thing or planning to do so.

SCHOOL/UNIVERSITY PARTNERSHIPS: PROMISES AND CAVEATS

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The Partnership Concept

The term "partnership" has gained considerable currency in recent years. The word has nice connotations, implying communication, mutual rights, responsibilities, and returns in the form of income or pleasure, less likely to be available singly. In marital and business relationships particularly, it is assumed that each partner supplements and complements the other in achieving what cannot be or is less likely to be achieved alone. It is assumed, also, that the enjoyment of maximum benefits depends on each party to the partnership giving up a measure of independent functioning.

Presumably, then, successful partnerships have at least three essential characteristics: a degree of dissimilarity between or among the partners, the mutual satisfaction of self-interests, a measure of selflessness on the part of each sufficient to assure the satisfaction of self-interests of both. By contrast, partnerships not likely to be satisfying and lasting would tend to be characterized by too great or too little dissimilarity, little overlapping of self-interests, and unwillingness to change behavior or give up ground or turf.

A successful partnership is in large measure symbiotic. That is, there is a union of unlike organisms (or institutions) involving a rather intimate being together in mutually beneficial relationships.

Partnerships in Education

In education, the word "partnership" often has been used to describe connections between schools and businesses or school districts and the business sector. The two sets of entities certainly are different—perhaps too different to effect a productive coming together. Indeed, the differences appear to be so great to many people on the business side that they have difficulty resisting the temptation to shape schools in the image of their businesses. Setting out to reform the other partner is not a good way to enter a marriage. Clearly, there are self-interests that could be satisfied in

school/business partnerships. Commercial enterprises add to the economy on which schools depend. Businesses see the relationship between good schools and competent employees. But these obvious connections are not powerful motivators of an intimate working relationship between the business and precollegiate educational communities.

It is not surprising that most school/business partnerships have turned out to be more a relationship between a benefactor (not always benign) and a beneficiary than the kind of successful partnerships I have defined. Across the country there are various "Adopt-A-School Plans," arrangements whereby engineers, for example, serve part-time as teachers or resource persons in local schools, and career education curricula involve the cooperation of business and corporate enterprises. These are less partnerships than helping connections, with business usually adopting a philanthropic, *noblesse oblige* stance.

The business/school relationship approaches symbiosis when, for example, schools and businesses together see the prospect of a better career education curriculum taught jointly. The problem is real and relatively immediate: each partner has something different to contribute, there are mutual self-interests that overlap, and there are sacrifices by both. There is turf to be given up by those educators involved in vocational and career education, but there are also long term advantages, and perhaps even survival, at stake. The proposed partnership has most of the necessary ingredients for successful functioning.

The word "partnership" frequently is applied these days to what are essentially networks of similar classes of institutions such as schools or school districts. People with common objectives come together to exchange ideas, advance understanding of their vocation or avocation, and gain the benefits of camaraderie and socialization in a new set of group norms. This kind of networking has a long history in human endeavors. The focus is

primarily on learning from one another to do better what is done now. The question of whether, or even why, we do what we do in the ways we do it rarely is raised. Indeed, raising it often triggers a closing of ranks to shut out the inquirer.

These job-alike or function-alike networks tend to be ineffective change strategies. They usually are low in their demands on time and energy, require giving up little or nothing, and are simultaneously high on congeniality and low on confrontation. Responsibility for management—setting agendas, calling meetings, keeping minutes, etc.—often is alternated among members of the network. When someone is employed for this purpose, the expectation is usually for management rather than leadership. The executive director of such a network who has fundamental change or reconstruction in mind might be wise to have job alternatives in mind as well.

In the wake of *A Nation At Risk*¹, the word "partnership" is being used to denote new networks of principals or superintendents (or schools or school districts) designed for purposes of school improvement. There is, apparently, some ambivalence regarding purpose because the rhetoric or justification often includes words such as "change" and "reconstruction." If fundamental change and reconstruction are to be taken seriously, these so-called partnerships will have to go beyond the networks that have characterized schooling in the past. Here is an incomplete list of characteristics needed to form successful partnerships:

1. **PURPOSES.** Traditionally, networks of individuals with similar positions or institutions with similar functions have taken as their prime purpose the edification, professional improvement, and socialization of their members. It is assumed that good things beyond the well-being of members will occur through serendipity. Change and reconstruction of the kind now being identified as needed, however, will require a willingness to examine everything practiced as well as strategies directed to change many things long considered sacred. Successful companies accept this premise and way of life as givens.²

2. **RETRAINING.** Those in the profession who have the doctorate and who "have arrived," in that they are in the top posts, will need to develop new understandings and

skills. Staff development is not just for someone else. It will be necessary to build in retraining as part of one's everyday life. Successful companies accept this also as a given.

3. **STRUCTURE.** Whereas traditional networks have relied almost exclusively on their own members to develop and forward an evolving agenda with speakers to address topics, fundamental change and reconstruction will require systematic concentration on hard-rock problems that have heretofore resisted attack or been bypassed because of their seeming intractability. Consequently, the potentially successful partnership must build in from the beginning the elements necessary to pursue such an agenda. These include moving partnership activities from back burner to front burner and from low energy to high energy status, revising one's back home time schedule to include implementation of partnership agreements, building in some ingredients of a divergent or countervailing characteristic such as long term consultants rather than just speakers, or including a different kind of institution with overlapping interests, and so on.

4. **LEARNING MODE OR AMBIENCE.** Whereas most networks depend heavily on input of information, camaraderie, the exchange of state-of-the-art experiences, relatively undisciplined and sometimes non-cumulative exchanges of viewpoints, and a core of relatively unquestioned beliefs (such as those of a religious sect), change-oriented partnerships require a much more disciplined form of inquiry which often questions current practice, challenges basic values, and promotes confrontation. Further, these same characteristics must become not only the orientation of participants but also those to be promoted in the home-based institution.

5. **STAFF.** It becomes apparent that the rather casual rotation of management responsibilities among members of the network will not suffice. And a manager-type executive director will not suffice, either. Depending on the size and goals of the partnership, there will need to be both built-in and consultant-type professional personnel spending a substantial portion of their time not only in advancing the substantive agenda but also in assisting the members with their unique, home-based problems in effecting change. The most difficult part of their work will be that of maintaining the inquiry mode of problem solving. It is all too easy for administrators to slip into the

comfortable habit of leading by position of authority rather than by delegation of power.

6. *EVALUATION*. Traditional networks survive largely because the members enjoy being with colleagues and gaining new information. Encounters with countervailing, upsetting, ideas and confrontation are likely to lead to dissatisfaction and non-attendance. Consequently, evaluation concentrates on these immediate satisfactions and may lead to the selection of the less controversial agenda items and the more entertaining speakers—characteristics of the so-called “old boys’ networks.” Change-oriented partnerships require evaluation of effects beyond the mere enjoyment of meetings, ranging from the attitudes of those with whom principals and superintendents work to identifiable changes in teaching, curricula, or whatever else may be the targets of improvement.

Clearly, partnerships with characteristics such as these are not for everyone. Indeed, they may not be for many of us. There is little need for them if we believe that schools are organized and conducted just about as they should be. What is needed is only a kind of “shaping up,” involving more orderly schools and classrooms, more time on school-based learning, fewer electives, more homework, better prepared teachers, and so on. Judging from recent state enactments, these appear to be the improvements thought necessary and sufficient by many elected officials who, presumably, endeavor to stay close to what they think is wanted by the bulk of the electorate.

Some of us think otherwise. Ted Sizer, for example, believes that many of the regularities of schooling simply prevent teachers doing what we routinely expect them to do.³ It is folly, he says, to expect English teachers to coach in writing the 150 students most of them confront each day. The circumstances of schooling must be changed to reduce this ratio dramatically.

The point to be made is obvious. If getting better schools means doing better what we now do, the job is relatively easy. But, if it means living up to our rhetoric of what education in schools should be and educating our children and youth better in the face of dramatic changes in the school population and in the world, then the challenge is among the greatest this nation has ever faced. The partnership required is one we have not yet attempted, let alone effected.

School/University Partnerships for Educational Renewal

One kind of partnership, which appears to be a necessary component of an effective educational system, would bring together schools and the fountainhead that prepares personnel for the schools, namely the university. Of course, this is too obvious to warrant further discussion. Schools are users, universities are producers. The two are a partnership. Why propose to create what already exists?

But do universities and schools commonly constitute partnerships as I have defined the concept? There may be instances, but, if so, these are instances only; they are not at all common. It takes little imagination to come up with a list of apparent overlapping self-interests crying out for collaborative endeavor. As the data we gathered in *A Study of Schooling*⁴ began to reveal patterns and themes, I became convinced not only that progress with the hard-rock problems requires a school/university collaboration but also that the responsibilities of these two institutions for the quality of schooling are virtually inseparable. Universities can no more divest themselves of responsibility for poor teaching in the lower schools than they can plead complete innocence with respect to the quality of medical practice. Indeed, Derek Bok [President, Harvard University] took upon himself the task of berating Harvard's Graduate School of Business for failure to include in its curriculum what he perceived to be critical issues in the business community.⁵

The conclusion that universities must take some responsibility for the conditions of educating children and youth does not necessarily lead to the further conclusion that universities must establish with schools the kind of partnership described earlier—unless some part of the responsibility assumed by universities depends on schools for its successful fulfillment. There are several such parts.

One part emerging clearly is how teachers teach. After reviewing the data from observations in 1,016 classrooms, my colleagues and I concluded that the range of pedagogical methods observed is exceedingly narrow,⁶ and that these reflect methods observed by prospective teachers during their years of being elementary and secondary students. It appears that what happens to teachers in university preparation programs simply is not deep

and profound enough to transcend what they had observed teaching to be during the years before. Further, what was modeled before is demonstrated again during student teaching and expected of them as teachers. Were we to set out to design a system carefully contrived to preserve the status quo and perpetuate the conventional wisdom, it would be difficult to design one better.

The problem is not that lecturing, telling, and questioning the total class are bad and should be eliminated instead of improved. It is, rather, that the range of teaching behaviors is so narrow that the diverse ways humans learn are not adequately cultivated. Students who could learn under different kinds of stimuli are denied the opportunity. This need grows greater rather than less, given the changing demographics of births in this country.

To go beyond the specific problem, it appears that the conventions and regularities of schooling, far more than the infusion of knowledge into schools and the education of educators, legitimate and shape educational practice. While this is to a considerable degree true in all fields, one is forced to conclude that the bonds between the production of knowledge and personnel in the field of education and ongoing practice are sufficiently loose as to make education one of the weakest professions.

In summary, the argument for school/university partnerships proceeds somewhat as follows. For schools to get better, they must have better teachers, among other things. To prepare better teachers (and counselors, special educators, and administrators), universities must have access to school settings exhibiting the very best practices. To assure the best practices, schools must have ongoing access to alternative ideas and knowledge. For universities to have access to exemplary settings and for these settings to become and remain exemplary, the schools and the preparing institutions must enjoy the symbiotic relationships of going together as equal partners. In the kind of partnership envisioned, universities have a stake in and responsibility for school improvement, just as the schools have a like interest in and responsibility for the education of those who will staff the schools.

For the past several years, I have been heavily involved in the development of such partnerships. In the process, I have become in-

creasingly convinced of their merit and necessity and, simultaneously, equally impressed (at times, depressed) with the difficulty of creating them.

Two of the three essential characteristics of successful partnerships are clearly present. First, the marriage partners are dissimilar—perhaps, given the nature of some universities, too dissimilar. Second, there are overlapping self-interests some of which has been identified. Unless the satisfaction of self interests is present from the beginning—on both or all sides—the partnership will not flourish.

The potential for the third characteristic is blurred. For some universities, the initial commitment to educating personnel for the schools may be insufficient to generate a spirit of selflessness and a willingness to give up or share turf. For some school districts, the gains associated with a close school/university relationship may be perceived as not worth the time and effort involved.

Let me elaborate on this critical third characteristic of successful partnerships. One of my continuing associations has been with a state where a serious effort has been made to strengthen several networks of schools by aligning them with colleges and universities to form partnerships of the kind depicted here. The idea of closer university involvement brought forth sharp questioning and some open hostility from a group of school leaders from various parts of the state. The hostility was addressed particularly to colleges and schools of education. "Why involve the schools of education?" they asked. "The professors don't listen to our problems. They just want to lecture to us and then go back to the ivory tower."

I can add to this experience dozens of conversations with teachers and administrators who expressed little or no hope in getting help from a nearby university. Superintendents have described to me their own district-wide staff development programs operating entirely apart from universities or with selected speakers and consultants from higher education. Many see more rather than less of this sort of thing in the future. Educators in the schools have engaged in sharp criticism of teacher education programs while advancing the view that their own greater involvement in teacher preparation would be an improvement. Even when those with whom I talked acknowledged the *potential* contribution of

universities to school improvement, there was far more pessimism than optimism about both the willingness of professors to become seriously involved and their ability to be of assistance.

There is little on the university side to warrant optimism regarding willingness to go much beyond the *noblesse oblige* view of assistance to schools that has prevailed to some degree in the past. Most professors rightly view direct, personal involvement in the myriad problems of schooling as endless. Many rightly feel ill-equipped. Just as schools of engineering, for example, have fewer and fewer professors who have engineered anything, schools of education—especially those in research-oriented universities—have fewer and fewer professors who have taught children or had associations with schools other than their own as parents and students. In the major universities, research productivity is the motivating force.

Ironically, schools of education in these research-oriented universities have found it increasingly difficult to staff teacher education programs and frequently do so with persons not members of the regular faculty. Harry Judge, in a critical analysis of graduate schools of education, describes his prototypic "Water-end University" wherein studying teachers is a highly appropriate faculty activity, but preparing teachers is not.⁷ The decline of interest among some of the most prestigious schools of education has been a motivating factor in bringing together several dozen of their deans for purposes of defining an appropriate role in the field.⁸ There is some irony in that the effort has attracted considerable national attention and little surprise over the fact that the deans perceived their concerted action to be necessary.

I have argued for a symbiotic relationship between schools and universities for purposes of simultaneously improving schools and the education of educators. But, given the present gulf between the two, is there any hope of establishing school/university partnerships, let alone of making them productive? Phillip Schlechty [Executive Director, Gheens Professional Development Center], who has probed deeply into both the circumstances of teaching and the conditions of teacher education, is pessimistic about either institutions of higher education or schooling effecting change in

teacher education and is skeptical about the potential effectiveness of a union of the two:

The final reason I find collaboration a dubious solution to the problems of teacher education is that too often it is based on the assumption that enlightened self-interest is an appropriate foundation upon which to build professional education programs. This assumption is mistaken.⁹

His solution is the creation of a new type of teacher education organization—a site-based professional school that is "outside the public schools, outside the university, and outside the teachers' organizations."¹⁰ Currently, with a foot in the University of Louisville and a foot in the Jefferson County Schools, he appears to be well-stationed for the creation of such a setting.

Personally, I am convinced that we do not have the proper model of a professional school for the preparation of educators. And, since we do not, the improvement of schooling is seriously hampered. Perhaps we need a new institution along the lines of the one envisioned by Schlechty. I am convinced—and no doubt Schlechty would agree—that we are not yet ready to bring one into full-blown reality. My fear, my near-nightmare, is that one will be legislated into existence and promptly replicated in several states. Such a step would set back progress toward a solution for years, perhaps irrevocably.

What I propose instead is setting in motion a process through which we might arrive at one or more viable solutions to the interwoven problems of getting both better schools and better preparation programs for those who will staff them. At present, given the proposition that we may need new kinds of institutions, the institutions with self-interest most at stake are the schools and the universities. But, as Schlechty points out, enlightened self-interest will not suffice. In my judgment, pursuit of self-interest will be productive only to the degree that the self-interest of schools and universities are seen by both to overlap and to be sufficiently compelling to warrant the maintenance of a symbiotic relationship. The result of such a partnership could be the redesign of existing institutions or the creation of new ones.

On the assumption that the establishment of

school/university partnerships focusing on mutual self-interests could be productive, several have been established or are in a formative stage. I describe briefly the formation of one of these among Brigham Young University (BYU) and the five adjacent school districts—Provo, Nebo, Alpine, Jordan, and Wasatch. For the past two years, I have had a visiting relationship with BYU for the purposes of helping the College of Education study itself and, particularly, rethink its relations with schools. At the time of the initial invitation, the dean was aware of our having formed a school/university partnership among UCLA and a dozen nearby school districts and was interested in pursuing the idea further.

Toward the end of my first year in this visiting capacity, representatives of both the University and the school districts had moved a long way toward desiring some closer working relationships, and a week-long process for achieving some kind of closure was scheduled. My schedule called for a two-day meeting with deans and department chairs, followed by a one-day meeting of this group and the five superintendents, a day-long session with the deans and superintendents, and concluding sessions with the faculty of each department in the College of Education. I reacted negatively to this schedule from the moment I learned of it.

The administrators of the College of Education and I fully shared this uneasiness by the time we were only an hour or two into the first day's meeting. By habit, the University was deciding what was best for itself and the schools. Presumably, by Wednesday, we would be in a position to bring the superintendents to the campus for purposes of hearing their reactions to what had been described. We scrapped the schedule, proposed another, and immediately cleared it with the superintendents.

The deans, chairmen, and I turned our attention to how the self-interests of the University might be met through a relationship with the school districts in which all six sets of institutions would be *equal* partners. We eschewed the arrogant role of determining how the self-interests of the schools might be met through the proposed partnership. By the end of the day, we had elaborated on about a dozen areas of university functioning that might be enhanced through collaboration.

On Wednesday, I had a similar meeting with

the five superintendents in the board room of one of the districts, with no university personnel present. Again, the agenda were areas of self-interest and, again, we identified about a dozen. There was little or no discussion of how the University might profit. Indeed, most of the discussion of the University focused on the kinds of contributions it might be able to make to the areas identified.

That night, I went over the two lists and pulled out about a half-dozen areas of clear overlap and, presumably, of mutual self-interest. The next day, the deans, superintendents, and I met on neutral ground—a conference room in a downtown hotel. We agreed on the clear overlap in mutual self-interests, formally created the partnership, and took several of these as the first items on the agenda, with those present agreeing to initiate steps toward the establishment of task forces to address them.

On Friday, I reported to the several faculty groups at BYU regarding the week's events. In the course of describing the structure of the governing board of the partnership, I received a sharp comment, "The University is not equally represented. There is only the dean, but there are five superintendents." This stimulated a discussion of what is meant by "equal partners" and how the functioning of the partnership was envisioned. If this was to be a one-on-one relationship between the University and each of the school districts for purposes of the University assisting the schools and training teachers and others in them, then there was, indeed, an imbalance. And I drew the kind of structure implied, with the University at the center looking down one-way streets to each district. But, if each was to be a partner among equals, working together in various combinations on areas of mutual self-interest, then the structure of the governing board was appropriate.

The several task forces in motion have represented segments of the education profession and the University—teachers, professors of education, principals, professors of the academic disciplines, etc. One of these has already designed a new program for the preparation of school principals. The first group of not more than twenty-five persons will begin their work in the summer of 1986. Other task forces are at various stages of conceptualizing new endeavors, including the development of "key" schools for the demonstration of exem-

play practices and the education of educators.

Few things are more difficult than effecting significant improvements in schools and in the preparation of those who staff them. Judith Lanier [Dean, College of Education, Michigan State University] points to the difficulty of forming successful coalitions because of the multiplicity of factions, each controlling various small pieces and sharing little mutual interest or trust.¹¹ However, less piecemeal solutions must be found.

My personal plans are to go forward on three fronts simultaneously. If we believe it necessary to move from present conditions to more desirable ones, we need both to understand what must be changed and to have in mind alternatives worth the effort of attaining them. The problems of the school are now well documented, and there are reasonably clear visions of better ways. There exists no comparable body of data on the circumstances and conditions of educating educators, and the images of desirable alternatives are fuzzy and fractionated.

Therefore, I have begun a comprehensive study of a representative sample of teacher preparing institutions for purposes of documenting extant practices, perceptions, and the like. The intent is to put together "thick" descriptions, as was the procedure in *A Study of Schooling*.¹² The project embraces a parallel effort to conceptualize alternative models for each component of the enterprise. This model-building effort, still in the planning stages, will proceed on at least three fronts: analyzing the experiences of the other professions, most of which have similar or identical problems; culling the literature and the views of those who have given serious thought to how current practices might be improved; and following carefully the work of a network of school/university partnerships, each seeking to improve schools and the education of educators in their own settings. This network, still in the formative stage, will be made up of partnerships already formed and yet to be formed and tentatively includes clusters of school districts, each joined with a university in a dozen states. There may be some additions and subtractions, but the current plan is to keep the total number of partnerships in the network to not more than twelve and not less than eight.

The first phase is projected to be five years

in length. Funding for the first year has come from the Exxon Educational Foundation and the Danforth Foundation. Further funding from these foundations depends on both early progress and commitments from other funding agencies.

No doubt there will be periodic reports on accomplishments. The experiences of the partnerships, in particular, promise to provide a rich resource for both the development of exemplary practices and research. It is expected that, at the end of the five-year period, a comprehensive report on the conditions and circumstances of educating educators, some alternatives for improvement, and the successes, failures, and promises of the school/university partnerships will be issued.

The three-lane road I have described will not be an easy one to travel. It is bumpy, curved, and dusty. And it runs through many different fiefdoms, some of which are at war with each other, and many of which are torn by internal strife and uncertainty. In five years, we will have, at worst, a map of the road travelled—a map that should prove useful to other travellers. At best, we will have before us both a projection of where the road should lead next and sufficient experience to travel it with confidence.

RICHARD KUNKEL (Executive Director, National Council for the Accreditation of Teacher Education): In discussing the study you are undertaking you mentioned the term "representative sample," yet it would appear that the sample of schools that you have given is not, in fact, representative.

DR. GOODLAD: That is correct. In my haste to finish this talk, I did not mention a marked shift that occurred with us. We had originally planned to begin with a representative sample of teacher preparing institutions (out of the total of 1,200 to 1,300), which we would study at the same time that we were engaged in the school/university partnerships business. We do not intend to do that now.

I had a meeting with a group primarily composed of research people who told me my findings would be suspect because the institutions involved in partnerships had already bought into certain assumptions. This automatically destroys their usefulness as a representative sample. So, while we probably will use some of those institutions and work with

them in trying to document the experiences they are having and the problems they encounter, the sample for study will be a different sample—a carefully selected, purposeful, representative sample. We are now working on that with a member of the American Association for Colleges of Teacher Education (AACTE).

I do want to return to the first part of your question about not beginning with a representative sample. There is only one institution that is without a graduate program, I believe. That is Metro State College in Denver.

However, you will notice that the whole cast of my remarks has had to do with research-oriented major universities. Frankly, with these institutions we are tackling the toughest knot. These institutions are going to be the hardest to bring along because of the reward systems and so on. Even if we come up with some good ideas, without a fair number of those major research institutions involved, we are in trouble. Notice, however, that only two or three of them are in the Holmes Group, and that was deliberate. I talked a good deal with Judy Lanier, who chairs the Holmes Group. She sees this as an action type of activity that may feed the Holmes Group, although the concept is very embryonic at this point.

Also, it is possible that a major research-oriented university might choose to set up a partnership structure with several other teacher preparing institutions in its area. For example, why shouldn't UCLA work with nearby campuses of the State University of California? This could be a very positive kind of development. That is what I would like to see happen.

PHILLIP SCHLECHTY (Executive Director, Gheens Professional Development Center): I would argue that we need to have an organization outside of the university to train teachers. It is not a matter of being separate from a university and separate from a school, rather independent from and associated with those entities. I would like to raise another question. Why do we not also look at the legitimate interests of state departments of public instruction and teacher organizations as a part of this partnership building arrangement?

DR. GOODLAD: Let me deal with both your observation and the query. First, you are mak-

ing very clear that, although the quote from your paper is correct, you have gone on to describe a structure which is representative of the schools, the university, and the teaching profession. What you are really saying, if I am correct, is that no one of these will *own* the new structure. That is what is distinct and different about your vision. Colleges or schools of education are owned by the university. Staff development centers in school districts are owned by the school districts. Various staff development programs run by unions and teachers associations are owned by them. You are proposing an institution that, while essentially collaborative in nature, retains a great deal of independence.

Regarding the query about state departments of education and the building of collaborative arrangements, look at the example of the state of Washington. The University of Washington and a dozen major school districts in the area, which represent nearly forty percent of the student population in this state, have been working toward formulating a partnership. This has been done in collaboration with Buster Brouillet [Frank Brouillet, Superintendent of Public Instruction, Washington]. A member of his staff sat in on the planning all the way through, and he himself has been involved on a number of occasions. That partnership has now arrived at a formal stage. It was a grassroots effort that came from the schools, not the university. In Colorado, Calvin Frazier [Commissioner of Education, Colorado] and his staff have been heavily involved in the collaborative effort now emerging there. So we would hope that those linkages to state departments of education would be made.

One of the things we are trying not to do is to prescribe too much at the outset. We are trying to leave a great deal of flexibility.

Tomorrow, at our meeting of partnership representatives, we will have two, possibly three, state superintendents. Had it been possible, we would have liked having all the Chiefs. We will talk about our experience and then welcome suggestions that come from the Chiefs.

BARBARA NEWELL (Chancellor, State University System of Florida): In Florida we set up our Institute of Education, a not-for-profit foundation, to act as a catalyst between the

university structures and the public school system of the department of education. We found this helpful in certain very specific, targeted projects. I notice that some of the other states represented here are also trying variations on this theme of a third party. They sound similar to the concept of "associated with but independent from." Do you have any evaluation of these partnerships, any suggestions?

DR. GOODLAD: No, I don't at this stage. All I can say is we have not made any effort. I am coming off a roll from our previous study and perhaps should not have entered into this one as quickly as I did. However, one feels pushed to do so because a lot of this groundwork has not yet been done. In fact, we do not yet have the Exxon Foundation Grant, even though we are planning a meeting tomorrow and spending some of it. We are at the initial stages. My work with partnerships has been very embryonic. As a matter of fact, I did meet with about eight Chiefs at Colorado Springs in 1981 to talk about a gleam in my eye, which is essentially what I am now talking about here today.

All I can say is that we have an extraordinary grapevine in this business. In the last three or four months (without benefit of any publicity), I have received letters from at least five states that are doing something along the lines of what you described. The most recent one came from Arkansas. I do not know how much activity is in existence, nor how much we will need to do to document this. I hope someone else will be documenting it, and we can draw on their work.

ROBERT D. BENTON (Superintendent of Public Instruction, Iowa): There has been considerable talk at this conference about the fact that we have college presidents here. There need to be increased involvement and encouragement on the part of college and university presidents in this whole teacher education issue. Are there any plans to increase college and university president involvement, or are you going to stay pretty much in the colleges of education?

DR. GOODLAD: We just cannot do that, Bob. I take the position that when I work with a school district, I start with the superintendent. And when I work with a university and teacher preparation issues and so on, I start

with the dean of the college of education. However, if it turns out that the school of education sees itself operating in isolation from the rest of the university, then that institution will not be a part of the national network we are establishing. One of our major points in tomorrow's discussion will be that we have not yet figured out how to meaningfully involve the schools of arts and sciences. There has been a lot of the discussion to the effect that we cannot blame the schools of education for teachers who do not know mathematics. That is an arts and sciences problem. We, however, can blame the schools of education for admitting such people into a teacher preparing program.

There are a lot of issues here. One of them, which I have encountered in several institutions, is that the general education requirements in the university do not have an adequate interface with what is taught in high school. What does that say about special content and methodology? Are we talking about a professional school like medicine, which has brought a lot of the fundamental disciplines into its own school, or are we talking about some collaborative structure?

You may be aware of the report that resulted from the meeting of the presidents of land-grant universities about three years ago. Two ex-presidents said that we just cannot leave teacher preparation to the schools and colleges of education and recommended that all of this be moved to the level of a vice president or special provost within the university structure.

UCLA is struggling with this dilemma in that the Graduate School of Education, while involved in a partnership that was set up when I was there, is not involved very much with teachers in the various subject fields. There is another unit of that campus, headed by a dean, that does nothing but work with the schools on curricular improvement, teacher improvement, and so on—and those two programs are not integrated with one another. The central administration is asking, "Should we combine the two in some way?"

At Brigham Young, the President's office is very actively involved in teacher preparation programs. At the University of Washington, the meeting convened for the superintendents and the state superintendent was called by President Gerberding. I think this executive

leadership is absolutely essential, because this kind of partnership cannot exist all by itself.

Now the question becomes: "Should we have some kind of a professional school over the whole business? Is it to be a collaborative arrangement?" As Judy Lanier said, these turf issues are going to be troublesome.

FRANKLIN WALTER (Superintendent of Public Instruction, Ohio): Is there evidence that most teachers today are poorly prepared? Second, is there evidence that a higher percentage of teachers than doctors or lawyers are poorly prepared?

DR. GOODLAD: The answer to both questions is "No, there is no 'evidence.' " Your first question reflects a perception that there is a major reason for our looking at the teacher education programs. This lack of evidence is the problem that I faced with the study of schooling—that, since we have not yet created the models and compared one model with another, we do not have the hard data to prove one thing is better than another. I would rather say that we are in a more preliminary stage than that and are really seeking to define some quality criteria by which we can arrive at conclusions more experimentally. Let me give you an example of one such criterion.

One of the most powerful things that medicine does is to socialize its people into the medical profession right from the very first day. They have a cohort. They bring in the "class of '88," or whatever year, as a distinct group. Law does the same thing, as does business to some degree. When business people meet at a reunion and name the business schools they went to, such as Wharton, they are asked, "What class?" One does not hear such exchange in our field, and the reason is clear: We do not socialize teachers into the profession, except haphazardly. Maybe some of you were, but not very many. How many of you were "in the class of '65 preparing to teach?" In many other professions, they knew who their colleagues were; they knew what their struggles were; they had lunch together; they fought over issues; and they argued about Professor X. It didn't happen with us. When others enter a profession, they eat it, sleep it, drink it, live it—twenty-fours a day. That is not the case in teaching or educational administration.

This is a major failing. Teacher preparing

institutions ought to identify their students, lay claim to them, and admit them with certain criteria of exclusion. By and large they do not do that. At present, this is the experience: students drift into Education 100; they go off and take some other courses; they come back and take Education 102, and then some other courses; they take Education 110 and then some other courses; and then they show up for student teaching. Suddenly they are discovered. I just do not think that is a good way to do it.

Now you say, "Can you prove it?" My data go back a long way. I worked with Jim Conant [late President, Harvard University] on his study of the education of American teachers, and the answer was an emphatic "Yes." Have I seen a dramatic change in the intervening twenty years? No. When it comes to whether or not teachers are better prepared than those in other fields, I do not know for sure. But I am not satisfied with what we now do.

When we say teachers must have clinical experience that exposes them to alternative pedagogies suitable for an array of children, we ought to be sure that they do. We will have to have qualitative criteria. I do not think we will have quantitative statistical data on these things until we have alternatives to compare.

DR. WALTER: What you described are ceremonial kinds of things that happen in graduate school programs to a certain extent. In a graduate program, one does establish relationships with peers and tends to eat lunch with them on a campus with a residence requirement. It is difficult to make the kind of comparison you have just made.

I believe we have perpetuated an idea that teachers are poorly prepared. This is particularly perpetuated at the leadership level in teacher organizations, but it is not manifest in my frequent conversations with teachers who are entering the profession or already in the profession. I am not suggesting that they are not poorly prepared, but I am suggesting that we are operating on an assumption that what is happening in teacher education is bad and that it is worse than the education of other professionals. I am very uncomfortable with this.

DR. GOODLAD: I do not want to get into the "worse than other professions" argument because I think we have enough to do in our

business without worrying about them. I want to go back to your statement about graduate study. Most graduate schools of education, even the best ones, have only a handful of people who are actually physically on campus interacting with one another. And the campus is the only place this interaction happens to any degree at all. Having been a university administrator for a long period of time, I am aware how the residence requirements are abused. In many cases, the residence requirement is for as much as twelve credits of study per semester. But most of the people enrolled are engaged in full-time jobs. I would say they are not doing well at either their jobs or their studies. It is not physically possible. In comparing those of my students who actually are full-time residents with those who drift in after a day's work, I see an enormous difference between the two.

While I know that there is much self-flagellation within the profession, I would rather deal with hard-nosed stuff. For example, look at the data from our study. You will find that eighty-eight percent of all classroom instruction at the secondary level employs only two pedagogical techniques: frontal teaching (lecturing, telling, questioning the total group) and monitoring desk work. Common sense tells us that is not good enough. It does not get us anywhere to say that the preparation of teachers is lousy. Rather, we need to be sure that every teacher preparing program provides hands-on intensive experience with a half dozen pedagogical techniques to entice young people into learning. This is a fairly practical, attainable goal.

Why do I say it? In part because the proportion of youngsters with the least background and in the lower socio-economic group is growing at such a rapid pace in our country. Thirty-six percent of all children born in the United States last year are minorities. This means many low incomes and one-parent households and will create a demand for better teaching techniques. So my concern is not whether teacher preparation is better or worse than some other profession, but to identify the hard-rock issues that we need to address. And I think the three hard-rock issues of our profession are: pedagogy; a balanced, comprehensive curriculum K-12; and equity in access to knowledge, which means access to good teaching and a good curriculum. We have to be able to testify to those three things.

ALICE McDONALD (Superintendent of Public Instruction, Kentucky): In examining teacher education, we find there are two distinct parts. Educators do not seem to appreciate this distinction. I do not think you did today as you talked about them. The first part, the undergraduate degree, seems to be the least of our problems in Kentucky schools. The job there seems to be adequate or excellent. The real problem is in the second stage. The education of a lawyer or doctor or another professional is all one stage; it is all together. One is a full-time student and does not begin practicing until the Ph.D. or necessary credential is earned. It is the second stage with which we in teacher education have a very difficult problem. At least in the state department of education, we find the master's degree and doctorate degree to be extremely inferior.

DR. GOODLAD: That is interesting. The day before I left, I received a batch of correspondence on that issue from Kentucky. It is very apparent that you are struggling with this issue. In a sense your question goes back to the previous one on the quality of teacher preparation. At least at the first step you have a kind of institutional control. That is, there are several shifts we could make, particularly in the building of better clinical opportunities in the schools, which is very critical. But you will recall that at one time the universities pretty much controlled staff development/in-service education. Inservice education was a university responsibility because hordes of teachers were still getting master's degrees. They poured in after school and on Saturdays. During the years I was at Emory University in Georgia, our main activity was offering all kinds of programs for the people already teaching.

What we have not realized is that much of that degree-getting has now dried up. Now there is a staff development problem of a greater kind. I believe the school/university relationship now becomes more important than ever. This is because the very individuality of coming in for an evening or Saturday class at the university destroys any sense of a socialization process with a peer group or combined experiences with the schools. This is one of the problems the Holmes Group is addressing.

You might not agree with me, but I think we went astray in promoting the Ph.D. instead of

the Ed.D. Although I have a Ph.D. degree myself, I think we would be far better off to have our own professional education top degree, just as other professions have their own degrees—M.D., D.D.S., etc. If we look at the individuals now enrolled in doctoral programs, they are primarily people out of the schools who are going back to the schools. In the major research-oriented universities, the professors are still cloning themselves, producing young researchers with the Ph.D. in education. But the demand is no longer there. We should define the Ed.D., not as a degree in educational psychology or a degree in any one of the disciplines, but as a degree for master teachers, principals, counselors, and special educators.

I do not think we can make it by redefining the Ph.D. as practical, related to the field, yet research-oriented and approved by the arts and sciences disciplines. The other professional schools broke away, while the schools of education did not. I know that this is not a very popular viewpoint in many places. I have come to it very slowly, the hard way.

Let me describe a practical experience. When I became Dean at UCLA, we had no distinction between the Ph.D. and the Ed.D. I appointed a committee to come back with a distinction between the two. The committee was not at work very long; the members came back with the simple recommendation that we do away with the Ed.D. I said, "You did not commit your charge. I asked for a distinction." We never raised the subject again, and we continue to offer two degrees, one not distinctively different from the other. I do not want to do away with the Ph.D. in education, but it should be relatively rare. It would be in the foundations; it would be research-oriented and clearly for preparing researchers and inquirers. The Ed.D. would be for the others. I assume there are many people in this room with the Ed.D., and I think that is the degree that we should be promoting.

EUGENE HUGHES (President, Northern Arizona University): I represent one of 362 institutions belonging to the American Association of State Colleges and Universities (AASCU), which, I believe, prepare more teachers than all of the others institutions combined. I am wondering—as I hear about your group and the Holmes Group doing the research and planning the partnerships and

so on—what is the role of the practitioner institution like ours in regard to what you are studying and in terms of the partnerships you are proposing?

DR. GOODLAD: I know this man and the results of his soft speech only too well. He questions why the Holmes Group is shooting for only ten percent of the teachers, in particular the head teacher type, while these hundreds of institutions prepare the bulk of teachers in this country. The central thrust of my group is to study a truly representative group of teacher education institutions, a number of which are AASCU institutions. We need to get the picture of what is going on in those institutions.

In addition, a number of the institutions that my group is working with invited me to work with them in developing partnerships. That we are working with several research-oriented institutions is in part serendipitous. I do not regard what comes out of those institutions as the model for all other institutions.

Thank you, ladies and gentlemen. I think I am a little clearer on these issues now.

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**PANEL DISCUSSION:
QUALITY CONTROL ISSUES IN TEACHER EDUCATION:
CAN SCHOOL/COLLEGE COLLABORATION AFFECT THEM?**

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Moderator

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Retention:
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Recommendations:
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DR. DUNCAN: Our first speaker, Greg Anrig, was the Commissioner of Education in Massachusetts from 1973 to 1981, and those of us who had the pleasure of working with him during that time appreciate his great leadership. Many changes were made during that time, and many of us would give Greg a lot of credit for the things that happened and the thrusts that CCSSO did make. Greg has taught at the local school level and at the university level. He has also worked for the U. S. Office of Education. During his time with that office, he worked on implementation of the new civil rights laws. One of his assignments was to work with the State Superintendent in Mississippi, Garvin Johnson, on desegregation plans. Later in his career, Greg became the Commissioner of Education in Massachusetts

during the time when Boston was having all of the racial riots. The chiefs were meeting in Georgia, and Greg was discussing his problems with Garvin. Garvin said to him, "Well, Greg, it is just like you used to tell me when you came down to Mississippi. All you have to do is just follow the law, Greg, just follow the law." Greg turned red from his toes straight up to his hair.

Greg will be talking to us about evaluation and testing as it relates to quality control issues in teacher education.

DR. ANRIG: Thank you. I will say one more thing about that time. Cyril Busby, Charlie Williams's predecessor, was at a meeting when all this busing controversy was going on in Boston and elsewhere. He said, "I want to

welcome you northern saints to the company of us southern sinners." I always thought he was justified in saying that.

I wanted to tell a few jokes and say some nice things about my successor, Jack Lawson, who is doing a great job; my new commissioner, Saul Cooperman in New Jersey; and Harold Eickhoff, President of Trenton State College in New Jersey, who is doing some very interesting things in education. But the time is limited, so let me just say that what I was going to say is very nice.

Teacher education at last is on the "front burner" in the current reform movement. This is needed and long overdue. In fact, we had better hurry before the practical and political pressures of another severe teacher shortage are upon us.

A number of studies on teacher education reform already have been completed. Among them are those of the American Association of Colleges for Teacher Education, the National Council for Accreditation of Teacher Education, the Holmes Group, and the Southern Regional Education Board. In addition, many states have acted to strengthen standards for teacher certification and for approval of teacher preparation programs.

Concurrently, the American Federation of Teachers (AFT) and the National Education Association (NEA) have called for higher standards for entry into the teaching profession and the use of tests to implement these standards. While the positions of the AFT and NEA differ in details, their intent is the same regarding entry into the teaching profession.

The educational community now recognizes that the public's concern over student performance requires both long-term improvement in individual teacher performance and renewal of the teaching profession as a whole. Without such improvement and renewal, the resurgence of public interest in and support for public education that is fueling educational reform nationwide eventually will be dissipated. As exciting as this opportunity is, the stakes are high for the schools of our land if our response falls short of the mark.

I have been asked to address how evaluation and testing can contribute to quality control in teacher education, within the context of the school/college collaboration theme of this summer institute. Let me first offer some personal views on what teacher education in the future ought to be.

A New Sharing of Responsibility Between School and College

I believe there is a need for a fundamental realigning of responsibilities for teacher education between schools and colleges in order to strengthen the preparation of future teachers. The college's responsibility for undergraduate teacher preparation should be to ensure that aspiring teachers have a broad general education, knowledge in depth of the subject field to be taught, and competency in the basic skills of classroom instruction and management.

The school's responsibility in undergraduate teacher preparation should be to provide the aspiring teacher with an expanded apprenticeship and the mentoring support to achieve high performance standards. The candidate should work for an extended period (perhaps most of an academic year) learning very practical tasks—how to organize units of instruction, manage a classroom, and involve students in their own learning—from a practicing teacher selected for his or her mastery of teaching. The teacher should be paid significantly by the college or university for this added service as a teacher educator.

As we all remember from our own experience, beginning teachers are concerned with survival. Undergraduate teacher preparation should develop the pedagogical and academic skills basic to the survival of the novice teacher in the classroom. The rest of what presently is undergraduate teacher education—philosophy, methods, human development, and psychology—should become part of a much stronger master's degree program to be completed within three to five years of an individual's entry into the teaching profession. Having gained classroom experience, the practicing teacher has a real-life context in which to appreciate and intellectually grasp the theoretical underpinnings of teaching and learning in public education.

Under such a realignment of teacher education, the college or university is primarily responsible for developing strong general education and knowledge of the teaching subject field; the collaborating school is primarily responsible for developing teaching skill in the apprenticeship. At the graduate level, primary program responsibility rests with the institution of higher education and secondary responsibility with the collaborating schools.

(perhaps for seminars relating theory to practice).

Key Points for Evaluation in Such a Context

Selection for Teacher Preparation: The tradition of teacher education has been one of "open admission," that is, any student in good standing within the college or university may elect teacher education. Recently, faced with financial and political pressures, some institutions and states have established requirements for entrance into teacher education. The most common requirement is that the candidate qualify on a test of general knowledge and/or basic skills (reading, writing, mathematics) deemed necessary for students who aspire to teach. Some states require a minimum grade average rather than, or in addition to, a test. In 1984, twenty-one states required that candidates for admission to undergraduate teacher preparation pass a test, thirteen states required that candidates have a minimum grade point average, and ten states required both.

I would advise states that require qualification on a test for entrance into a teacher education program to consider also offering an alternative to students. The alternative should enable an aspiring teacher to demonstrate promise to a faculty committee based on other evidence of performance. Such an alternative, however, requires that supplementary help be provided in the teacher education program so that students admitted under this alternative ultimately can succeed on certification tests required by the state.

Completion of Undergraduate Teacher Education: Upon completion of a teacher education program, every student should undergo a new kind of assessment that is comprehensive and based on total academic and apprenticeship performance. This assessment should be conducted collaboratively by the college and school team that has worked with the student. It should be an assessment of overall performance, not just number of courses and grades, based on standards explained to the student upon entry into the teacher preparation program. These standards should include evidence of those personal qualities essential to good teaching—qualities such as commitment, perseverance, sensitivity, and creativity—that cannot be measured by paper-and-pencil tests and term papers.

Entry Into the Teaching Profession: Along with the AFT and the NEA, I believe that states can and should use tests to ensure that those they certify as teachers meet at least minimum standards of general knowledge, knowledge of the subjects to be taught, and basic communications and pedagogical skills essential for classroom teaching. Practicing teachers, school administrators, and teacher educators should have a key role in developing such tests.

At this point I would like to address an issue that Tomás Arciniega raised this morning. Tomás is a member of the Educational Testing Service Board of Trustees, and he and I are very close in our views on a lot of things. I agree with his diagnosis, but not with some of his conclusions about the remedy. First of all, we need to remind ourselves that when we talk about testing for entry into the profession, we are not talking about protecting minority students from inadequately prepared minority teachers. Most of the teachers of minority students in the U.S. are white. We want to get good teachers for minority and disadvantaged students. While one must have many other qualities, one has to know what one is teaching. One has to be able to convey it. When all is said and done (and those of you in the audience who know me know of my commitment to civil rights and equal opportunity), we do not serve poor, disadvantaged, and minority children well by giving them teachers who themselves cannot master the basic skills that those students will have to master before they graduate from high school.

So the solution is not in the tests, the solution is in (and here is where I believe Tomás describes the problem correctly) intensive effort to improve the preparation of the students who aspire to teaching so they can succeed in college and pass whatever tests are out there. Where this has taken place (ETS is working very closely with some historically black colleges that are leading such efforts), curriculum has improved and the test performance has gone up. As the standards are tightened, more people sign up to be in teacher education. I think that is a message that we must acknowledge. In other words, I believe that we must and can use tests for entry into the teaching profession. They should measure the general knowledge of the candidates. In 1984, thirty-two states had such a testing requirement for teacher certification.

Completion of Master's Degree: I believe mas-

ter's degree programs should be strengthened and that successful attainment of that degree should be recognized as more important in the development of a career teacher. To determine whether the master's degree has been earned, the degree-granting institution and the employing school should conduct another collaborative assessment based on the teacher's overall academic and professional performance. At this point, the higher-level professional examination called for by AFT President Albert Shanker might be instituted. Candidates successfully completing such a graduate program should receive a significant salary advancement rather than the modest increment provided for the master's degree in most teacher salary schedules today.

Continuing Professional Development and Evaluation: Opportunities for continuing professional development should be provided in the teacher centers of school districts or collaboratives of school districts. These centers should be directed by teachers, easily accessible, and oriented primarily to practical problem-solving and instructional improvement of concern to classroom teachers. They should draw upon the research and faculty resources of institutions of higher education as well as the expertise of career teachers.

Continuing evaluation should be based on a comprehensive system of professional supervision and evaluation of classroom performance and teaching competency in every school district. I very much support significant teacher participation in this supervision and evaluation along the lines of peer evaluation programs such as the one in Toledo, Ohio.

Conclusion

The time is right for reform of teacher education in the United States. It is possible if institutions of higher education, states, and schools are able and willing to forge an alliance and work together. The teacher education reform studies have much in common, both in the problems they identify and in the solutions they propose.

For teacher educators, in particular, this convergence of views presents an opportunity to be in the forefront of higher education reform. The improvements needed in teacher education reflect needs in undergraduate education generally. Teacher education is an institution-wide responsibility in higher educa-

tion, and its improvement will require institution-wide action. Where this already has taken place, the quality of education benefits across the board.

The need is great and time is right. If we lose this chance by lack of will or by failure to unite, we will have no one to blame but ourselves, and children will be the real losers.

DR. DUNCAN: Thank you, Greg. Our next speaker is now making reality of the idea of the teacher center and the university working cooperatively. Phillip Schlechty is currently the Director of the Gheens Professional Development Center, Louisville, Kentucky, and also Professor of Educational Administration at the University of Louisville. His own background has been in public schools and at the university level in sociology and educational administration. By the way, our next two speakers were on the faculty at Ball State University at the same time. Please welcome Phillip Schlechty.

DR. SCHLECHTY: I am happy to be here. After listening to John Goodlad and Greg Anrig, I almost feel like saying "Thank you very much" and sitting down. There is not a lot I would say that has not been said, I'm afraid. But I do want to try to rephrase a few things. When we look at the issue of retention, we need to understand that there are some notions floating around that I think are mistaken. Many people who have examined the data notice a lower rate in teacher turnover and assume that teachers are staying in teaching longer today. According to the National Center for Education Statistics, the rate is six percent, down from eight percent. So researchers are saying that when youngsters finally do get a teaching job, given the shortage period, they stay in teaching longer. That simply is not true. Judy Lanier [Dean, College of Education, Michigan State University] and I have a running argument about this, but I think I am right.

During the 1950s and 1960s, we hired a lot of teachers. If you keep ten percent of many that is more than ten percent of a few. So, we ended up keeping ten percent of many. Eventually, we got clogged arteries. At this time, we have higher retention because we have a lot of teachers who are less likely to leave because they are not young teachers. The evidence I have indicates that young teachers are leaving teaching faster now than they did in the early

1960s. What we have to understand is that we have the classical statistical fallacy of over-aggregation of the data. That is, the turnover rate of young teachers is much higher than the turnover rate of older teachers. As we get more older teachers, we get less turnover. These people have demonstrated they are willing to stay, sometimes under intolerable conditions. With that in mind, we have to look at not only the present picture but also at teacher shortages. As teachers begin to retire, we are going to be employing more young teachers. As we employ more young teachers, we are going to have more young people leaving teaching.

I think we have underestimated the anticipated teacher shortage because we are going to get higher turnover at both ends; that is, young teachers leaving teaching faster, and older teachers leaving as they retire. This is a situation that we need to address.

Second, we need to ask ourselves a fundamental question, "Whom do we want to retain?" I would like to start out with a couple of distinctions. One is between competence and performance. It is true that we can deal with identifying and preparing competent teachers in terms of selection, training, and support. But just getting competent teachers into the classrooms, and even finding ways of retaining them there, does not mean that they will continue to perform, or even be able to perform. Competent people can perform in miserable ways. I consider myself very competent, and I was an absolutely low-performing Associate Dean at the University of North Carolina at Chapel Hill. I do not attribute that to my lack of competence; I attribute it to the job and the way the job was structured. Sometimes competent people are incapable of performing jobs because of the way the jobs and occupations are structured. To suggest that a surgeon working in a M.A.S.H. unit has to meet the same performance standards as a surgeon in a teaching hospital simply denies reality.

So we really need to distinguish between competence and performance. One of the first things we need to do is be sure that we have selection, training, and evaluation procedures that ensure that the people who do receive career status are in fact competent. Then, given those people and retaining those people, how do we maintain and motivate their performance? How do we provide support systems to them? Research shows that some peo-

ple leave teaching because of the low salaries, but certainly many more because of poor working conditions, lack of feeling in control of their work, low professional status, and so forth.

I would like to move right from that argument to some ways in which college and university collaboration with public schools might address this problem. I think we will be called upon to face some very difficult issues and some that are unpopular. One is that teacher education is a low-status occupation, particularly in high-status institutions. The Holmes Group is interested in enhancing the status of teacher education because teacher education is in fact the lowest status, lowest power organization on many of the Holmes Group campuses. On higher education campuses, the schools of education are often physically located on the edge of the campuses, both philosophically and geographically. Part of that is due to the time when the schools of education were formed, but it is also due to the way campuses have acknowledged and worked with schools of education. Second, those institutions with the greater commitment to teacher education are most likely to be those at the lowest levels of the higher education pecking order. Given that fact, we can either try to enhance the status of teacher education independent of the status of the teaching occupation, or we can do both simultaneously. My position is very simple. I do not believe it is possible to enhance the status of teacher education without simultaneously enhancing the status of the teaching occupation. I think there are ways of doing it that will be sufficiently threatening to everyone so that no one will do it. But we really have to think about how we go about doing it.

Let me make a suggestion. It seems to me that rather than being a low-status occupation in higher education, teacher education should be relocated in such a way that it becomes a high-status occupation for classroom teachers. By that I do not mean removing teachers from the classroom, but rather using something like the medical school model, the "watch one, do one, teach one" notion. We should systematically implant the mentor notion and develop career ladders and differentiated staffing patterns in which we take advantage of those people who have demonstrated their competence to teach children, and to teach teachers. There is a difference between those two kinds of competencies; that is, the ability and skills re-

quired to teach children are not necessarily the same as those required to teach other people about teaching children.

One way we might address the retention problem and the motivation problem is by creating a status structure between the university and the school—a system of clinical teacher education that, while governed by the larger organization of which it is a part, still has sufficient autonomy to bestow status on those individuals who have shown the competence to teach and the ability and willingness to support the teaching of other teachers, and engage in some other things that teachers sometimes laugh about, including much of our research. The American Federation of Teachers (AFT) has done very interesting things in terms of getting teachers and administrators to work as researchers. Columbia University has done some work using principals as researchers. Creating a full partnership in which people have the opportunity to study what they are doing as they do it is a good way to address the retention issue, and to ensure that we retain the people we want at the same time we address issues like salary.

We need to think not just of one piece—e.g., career ladders, teacher education reform, restructuring of one element, raising standards—but also of addressing the whole entity. There is no way to touch one piece without touching all of them. We must recognize (as I said in an address at AFT a couple of weeks ago) that the interests of us all—the state departments of education, the universities, the teachers' organizations, and professors in the schools of education—are going to be threatened somewhat, because the system we have serves our interests in some ways.

We need to have the nobility of spirit to ask ourselves, "How can we give up some things to gain more than any of us have now?" That is a really tough issue. It means, "If you are going to be a teacher educator, you must teach some kids." It is very difficult to demonstrate to someone how to do something if you do not have someone to demonstrate it with. The state of North Carolina passed legislation, I think, that said every professor of education ought to be in the classroom ten days each year. Someone asked me what I thought about it. I said as a professional educator, I was in favor of it, but as a parent, it scared me a little bit. At any rate, I do not think that solves the problem. We need to talk about systematic

demonstration. I have to be accountable for the methods I promulgate in the accountability system in which the teacher is a part. I have to be a part of that same accountability status system. Right now, being a low-status university professor is better than being a high-status teacher. We have to make the status systems mutually supportive. This step will begin to address the issue.

I would like to add a couple of points that I think are critical as we think about this. If we fail to address this issue, and if we fail to engage in fundamental, radical reform of the structure of the teaching occupation simultaneously with reform in teacher education or any component thereof, then we will "solve" the problem of teacher burnout by the year 2000. We simply will not hire a single teacher who is on fire in the first place, and they will not *burn out* on us. I really think we are in dire threat of that; all we have to do is look at the data to see the kind of folks that we are increasingly likely to recruit.

In fact, I could not help but think about some of the arguments about SAT scores and so forth that I heard this morning, and I would like to give you a projection. All other things being equal, if the patterns from 1972–82 continue, the SAT scores of ninety percent of the teachers that we hired last fall for secondary schools and who are retained will fall below the median SAT score of the seniors they graduate by 1995. That is a pretty scary statistic. While test scores do not indicate who can teach, I believe they indicate who cannot. If you simply cannot pass a test, it is difficult to believe you can teach other people how to pass a test. So long as we use tests to select doctors, lawyers, and insurance salesmen, someone has to be able to teach people how to pass a test.

Test-taking ability, whether it measures one's knowledge or not, is an ability that a teacher has to have, because we are in a test-oriented society. Maybe we should teach a course in how to take a test. It is a critical skill that our society values. We have large corporations that make millions of dollars in developing and selling tests. Corporations buy tests. We need to understand that and deal with it.

Another thing we need to think about: in our quest for standards, we often push for a higher level of mediocrity rather than for excellence. Teachers are most discouraged by the mechanistic approaches we take to evalua-

tion and uniform approaches to procedures, which really say to teachers that they are less and less professional, because they must jump through this hoop in just this way. These checklists are perfectly appropriate when we are talking about competence, but they are not appropriate when checking for performance. We must develop a different mode of operation.

I will close by saying that we need to begin to think about schools and the nature of teaching differently. We need to think of teachers as the managers of knowledge. If we begin to evaluate teachers as managers of knowledge, in the same way that top level executives are evaluated, and understand that the productivity of schools depends on the productivity of kids, just as the productivity of the automobile industry depends on the productivity of people in the assembly line, then we are getting somewhere. If we understand that measuring a manager is very different from measuring widgets, we could develop inspirational systems that would make it possible for us to retain the teachers we want, continue to motivate them, and take advantage of the brilliance and insight many of them bring to their jobs. The issue of retention has to be associated with the issue of motivation. It does no good to have a competent teacher who is retained but does not continue to perform because our system is not supportive. Thank you.

DR. DUNCAN: Our next speaker's specialty is in the area of curriculum development and evaluation. Since 1984 Richard Kunkel has been the Executive Director of the National Council for Accreditation of Teacher Education (NCATE). Prior to that, he was the Dean of the College of Education at the University of Nevada at Las Vegas. His background includes much work at the public school level and the university level. He spent eight years at the St. Louis University where he assisted the President and was involved with many activities. Please welcome Dr. Richard Kunkel.

DR. KUNKEL: Thank you. I would like to add two things to that introduction. First, I am Jesuit-educated, and second, I used to be in the Golden Gloves years ago in St. Louis. If you know about Jesuit education and growing up in St. Louis, you understand what the Golden Gloves was to me when I made the

finals one year—standing in the third round with my hands down, being pounded on. That may have a little bit to do with coalition-building, collaboration, and being willing to take on a job like NCATE in 1984. The topic of teacher education has a lot of metaphors that would interest Jesuits and Golden Glovers. Growing up in the street taught me enough about street living to not want to follow Phil Schlechty in the same style and format. So I am not going to do that.

For the sake of our discussion today, I suggest a clear distinction be made between accreditation and licensure/certification-program approval. Accreditation addresses the voluntary recognition of the quality of an institution's teacher education. On the other hand, licensure/certification-program approval is a state's way to ensure quality of professionals entering classrooms.

Although these are not definitions exclusive of various patterns in states, they are definitions now used by NCATE, which is the body recognized by the Department of Education and the Council on Postsecondary Accreditation for the accreditation of school personnel programs.

At a time when so many suggestions and reforms have been identified and are being developed in each of the fifty states, the focus of NCATE remains the accreditation of higher education. Very often, because of the massive reforms occurring today, many other expectations are placed on NCATE. Our major function, however, is to recognize publicly the level of quality in the institutions of higher education as they plan, conduct, and evaluate training programs for school personnel.

In some states, national accreditation is one element of state licensure. It is helpful to think of it as only one element; it should be seen as a helpful undergirding of other requirements (teacher testing, etc.) placed by the profession and state for issuing certificates or licenses to individuals.

What NCATE Has Been

Many of you have had long experience and many perceptions regarding the history of NCATE and its interaction both with your individual states and with the Council of Chief State School Officers at a national level. You are probably very familiar with the following facts:

1. NCATE was formed thirty years ago as a voluntary, self-regulatory body for higher education. It was conceived originally by the CCSSO, the National Education Association, and the American Association for Colleges of Teacher Education (AACTE).

2. Currently, NCATE accredits about 525 public and private institutions.

3. The Council conducts approximately 100 visits per year. The cycle is between seven and ten years for continuing accreditation.

4. A team of ten to twelve persons, depending upon the number of programs an institution offers, visits a site for approximately three days. (State education agencies, in most cases, assign an observer and a resource person to the team.)

5. The constituent Council consists of twenty-five voting members and, in recent years, has had minimal roles for state agencies. The Council functions very much on a collaborative model, touching nineteen professional organizations.

What NCATE Is Becoming

As many of you know, NCATE has been undergoing a substantial review and redesign of its standards, policies, and procedures. The official vote of acceptance for the redesign was cast in June 1985.

NCATE is moving toward:

1. Redesigned, unit-focused standards that can be applied in a qualitative way to make judgments about the overall quality of the teacher education unit.

2. Increased roles of state agencies in governance of accreditation. The increased roles can be seen by both the reactivation of the CCSSO and the more recent joining of the Council by the National Association of State Boards of Education. The Council, at its June meeting, voted on a new governance structure that will increase immensely the role of states in both the governance of the Council and in various evaluation boards.

3. Conditions for national accreditation based on the assessment of the unit and assessment of specific programs. Combined, these two conditions are designed to ensure quality for the public and clients of higher education.

4. A Board of Examiners of five to six professionals for initial visits and a three-member Board of Examiners for continuing visits that will replace the current ten to twelve member visiting team. This is an effort to increase the respect, esteem, and qualitative judgment of the Board of Examiners. We also seek to enhance inter-rater reliability by keeping boards together for three-year periods. The new Board of Examiners structure is seen as extremely positive from a qualitative program evaluation point of view.

5. Establishing necessary preconditions and the practice of data-driven continued accreditation. In addition, an expanded annual list will be used to present more information about an institution for consumer protection and usage. As part of the preconditions necessary for an institution to be visited by the Board of Examiners, there are clearly established qualitative-based standards. An institution must meet these preconditions before the board will visit and apply further systematic perceptions to the standards.

6. A design wherein national recognition of the quality in a state's program approval can be coupled with national accreditation. Recognizing the fact that many states have excellent approaches to program approval targeted specifically at certification areas, NCATE—working directly with the state education agencies—is developing a set of standards by which a state can be nationally recognized. In those states where national recognition is obtained, the institution of higher education will be considered to have met standards called for by special areas of training, i.e., preparation of science teachers, math teachers, educational communications technology, school psychology, etc.

7. Prevention of much duplication, as a result of the national articulation effort (national recognition of excellence in state approaches to program approval).

NCATE has made a commitment to function as a national forum to discuss quality in higher education, to be respected by its colleagues, and to operate on sound principles of effective program evaluation.

Now let us turn to NCATE and the collaboration involved in its effort to change itself over the past two or three years, including

leadership by many chief state school officers over the last four or five years.

First, in the last session we heard a comment that had to do with two deployment patterns of instruction that colleges of education utilize. This poses a challenge—how do we expect people to learn how to teach when they have been taught in inconsistent patterns? I was really excited about this as it relates to the NCATE redesign.

How many of you read Emily Feistritzer's work? One of Emily's writers asked me, "Richard, what are you most excited about in the redesign of NCATE?" First is the change in governance, as I indicated earlier. Second is another point that many people and journalists miss: there is a standard written in the redesign of NCATE that says that colleges of education and teacher education programs are going to be judged and evaluated by the effectiveness of their own instruction, their application of recognized principles of learning. This standard is in the redesign under the section Knowledge-Base Deployment. We intend to hold a college of education responsible for good teaching.

As we have seen, NCATE is working on a very strong clarification of the distinction between accreditation (a voluntary recognition of the quality of an institution's teacher education program) and licensure/certification-program approval. You will see in the next five to ten years a very important relationship developing between voluntary national accreditation and a state's prerogative to license, and/or the profession's role to certify. They are related.

We now know a great deal about change, but how do we really move radically to change a system, save the elements that are good, and build a better system in the future without stepping on the face of history? Three years ago, NCATE made a commitment to do this by opening its doors and bringing in important actors who had not been involved. That is the coalition story.

One important aspect of coalition building is compatibility of the participants. Out of a series of several meetings (participants included chief state school officers Dick Boyd, Cal Frazier, Bob Benton, and Ted Sanders) came a belief about a better future, a professional role of national accreditation, and a specific state role for program approval in the states that do it well and want to do program

approval. Some of you have been National Association of State Directors of Teacher Education and Certification (NASDTEC) officers and know the "logjam" that existed between NCATE and NASDTEC on that topic through the years—problems of duplication and multiple systems trying to serve the same mission.

Let us focus in closing on what NCATE is becoming as a system. We intend to become a system that you are proud of and have confidence in, that is built on good tenets of evaluation and has the right actors involved. We intend to distinguish between the kinds of things that are simply observed in presence or absence in evaluation terms and the highly qualitative, judgmental teams of respected people who will comprise the NCATE Boards of Examiners. We at NCATE and CCSO are committed to this.

SAUL COOPERMAN (Commissioner of Education, New Jersey): I have two comments. First, unless we have a body of knowledge that is defined so that it can be used and applied by the practitioner, the teacher, then we are not a profession. Second, unless we know exactly what good teaching is and can define it so that any three people in this room can observe the teaching act, write down essentially the same thing, share it with that teacher, magnify the influence of the great teacher, and help the teacher who is having a problem, then we are not a profession. These are two things we absolutely must have that we do not have in education today.

DR. SCHLECHTY: I do not have the answer, but I have a response. We know what good teaching is. We know what the state of the craft is. A good teacher needs to do those things the state of the art says must be done. We may not know very much about that—there may be very few things upon which we can evaluate a teacher. To the extent that we have good knowledge about what effective teaching is, let me give you a very simple-minded notion. We have some reason to believe that teachers who start their classes on time are better teachers than those who do not. That sounds simple-minded as the dickens, but that might not be a bad place to start. I would start out with some simple things that do not require inservice training, just reminders to teachers.

Second, the more we advance the knowledge and our mastery of it, the more we will

have the right to claim a profession. Al Shanker has been saying this for quite a long time, and I think he is quite right. Until we make a claim that the person who is teaching is something more than a person who has a baccalaureate degree in history or art or whatever, we do not have a claim for a unique profession. That being said, we have to come back to the socialization business. Until we socialize the young, naive baccalaureate graduates to believe they should base their practice on the best available knowledge, then we are caught in the bind of a tight supervisory system in which some supervisor checks to see if teachers do those things the bureaucracy says they must do, as opposed to a system of internalized norms and expectations of good practice, which are mutually upheld by the peerage, as it were.

We are now faced with the choice between investing in the induction, socialization, and retention of new teachers, thereby creating a high level of professional excellence, or spending our money to create a tighter supervisory structure and a very careful evaluation system that essentially guarantee a high level of bureaucratic mediocrity. We are really at a point of choice now, and I think it is easier for legislators to enact bureaucratic standards than it is to enact professional standards.

DR. ANRIG: I do not think we should be the least bit modest about the ability to identify good teaching. All of us in this room have been at some point supervisors of teachers. While we may not be able to draw an 800-point scale, we can certainly say, "That one is outstanding, and that one is very good, and that one is OK, and the other one is terrible." We did that all the time in evaluating teachers. What we want to do is make that more systematic and more disciplined. That can be done. Those things are observable. We need not be modest about it. There is a way to decide if a teacher is good or not.

DR. COOPERMAN: My concern is that I collected observations and evaluations from fifty districts and teacher education institutions in New Jersey. I found that a well-modulated voice and a bulletin board were noted on more of those than some of the research. My concern is that we do utilize the research findings (including the one about starting class on time) in the classroom, on the level where it

makes a difference. In New Jersey it is still not there. We are maybe twenty years behind.

DR. KUNKEL: I am really surprised at that question about the knowledge base, considering that states like Florida and Georgia have tried to use the research and are proud of the use of research in teacher evaluation and induction. I know projects in Virginia that are doing this with entering teachers. You people have been associated for years with Research for Better Schools (RBS) in Philadelphia, which has extensive data on classroom observation and ties it to student learning. NCATE, like New Jersey, opened itself to find experts to work on that topic; we think it is knowable. We used people like Jane Stallings, Hendrik Gideonse, and Brock Rosenshein to help us write such standards. I would like to spend some time with you specifically discussing the behaviors we are going to look for.

DR. SCHLECHTY: I think that there is a lot of misuse and abuse of the research on teaching. It becomes no more than another blasted checklist of the system, the moral equivalent of "works and plays well with others." When we start this behavioristic examination, saying that a teacher should routinely start the class on time, it does not mean that we have to have an elaborate system to follow-up on that. Second, if the teacher does not start the class on time, are there reasonable professional and defensible reasons why that did not happen? It might be a sound pedagogical judgment. The real reason for providing feedback to the classroom is to say that under normal circumstances, this is what ought to happen. When it does not happen, we should be able to account in a responsible way for why what is normally routine did not happen. In a teaching hospital, there is what is called a morbidity conference. They know that people are going to die, but they do not expect it at any time. When a person dies, the most competent physician is called on before not only peers, but also medical students, to account for why the patient dies. That is being accountable. The physician is not necessarily responsible for the patient's death.

One of the best ways to improve the amount of time on task was with a pair of wire clippers, that is, cut the P.A. system off. We should not hold the teacher accountable for what the system is doing. That is where we really have to

look at support systems. This goes back to my theme of retention. If we really want retention, we have to talk about how to support and maintain outstanding teachers, as well as identify and reward them. We must find some way to do that. Unless we can teach people to be highly reliable performers, checklists, research-based or otherwise, are of little value. It is easy to get one hundred fools to tell a common lie. That is "reliability". But it is much more important to get three wise people to tell the same truth.

STEPHEN KAAGAN (Commissioner of Education, Vermont): You mentioned five points for assessment of teachers, from the candidate stage to the full-fledged teacher stage. Which one or two of those points is really most important?

DR. ANRIG: The most important point would be the continuing evaluation, the point Saul [Cooperman] raised. We did a study in Massachusetts before I left there. I was frankly appalled to find how inadequate these evaluation systems were in some districts, while there were very sophisticated ones right next door. It is not that we do not know how to evaluate teachers, it is that we are not consistent across the board. If one were to choose an area to focus on in future reform, that should be one of them. The most important evaluation is the continuing evaluation, because it affects all of the teachers and kids. Now if you are talking about a test evaluation, I think that would be at the point of entry into profession.

DR. DUNCAN: Thank you. Bob Benton [Superintendent of Public Instruction, Iowa] and Cal Frazier [Commissioner of Education, Colorado] are the chiefs who will make recommendations to this group.

DR. FRAZIER: My recommendation represents a very cursory summary of all the things we have heard. I was struck by John Goodlad's characterization of the school/university partnership. He spoke to self-service and some selfless actors who need to come forward. We have identified a lot of self-serving people in this whole area of teacher certification/teacher education. If that is true, the group that we have not identified is the selfless people, those who stood by while the self-serving groups controlled the decision-making in teacher education and other educational areas. The fin-

ger points to the state commissioners or superintendents, departments of education, and state boards of education who in the end must certify the quality of the system. When the question is asked whether teachers are better now than they were years ago, fifty states fail by not being able to say, "Teachers are better today than they were five or ten years ago, because we have monitored that process and can report to the public the qualitative changes that have taken place." I would have to say that we have failed to do that. We swung and missed the first pitch. Now we are stepping aside. Governors and others have come in and said, "We are going to test. We are going to monitor quality."

Now where should we go as chiefs? We should look down the road. There are two pitches coming. The first is what Greg Anrig and Al Shanker mentioned: a test to judge teacher preparation quality. But when the teacher candidate finishes Al Shanker's recommended test, somebody is going to say to him or her, "Can you really teach?" So our next opportunity is for every state to develop the means of measuring whether or not that academically competent person can in fact perform on the job. How are we going to respond as states?

The second pitch yet to come will be the determination of the delivery system to bring the desired quality to every graduating class. The NCATE accreditation process must concern itself with the quality of the institution. However, if that institution does not turn out a quality product, then NCATE is not worth a tinker's damn. How then do we come back and tie a delivery system to quality and say, "University of Northern Arizona, you are doing a lousy job. You are not accredited because of the poor quality outcome." Or, should we be able to say, "Northern Arizona, you have provided at the end of your program a quality product, and you are accredited." It comes down to that. Are we ready for those next two pitches? I really think the self-serving groups are still out there. It is the group in this room that has to be selfless and argue on behalf of what must be done to improve teacher education and thereby improve teaching, student achievement, and the operation of effective schools.

DR. BENTON: I will give one or two reactions before I make some recommendations. I be-

come increasingly disturbed and distressed when we constantly compare education to law, medicine, and other professions. I think it is time we recognize that each profession is unique. The law is a unique profession, and there is a good program to train lawyers. There will be some good ones, there will be some bad ones. Law training is somewhat different from our way of training teachers or teacher educators. The same thing can be said of medicine. I wish we would quit looking to those professions. I wish we would look at the uniqueness of what we have to do because we affect society in a much more general way than law, medicine, or other professions.

Having said that, I have two or three recommendations. When I was president of the Chiefs, I tried to get them interested in the NCATE initiative and failed miserably. We did not accomplish much. Then Cal and Ted came along, and we are back in that ball game. I do not know whether what you have done in the redesign of NCATE is all that good, whether it is the answer to all of our problems; it probably is not. I would suggest that at some point in time, very soon, there be a national meeting where the Council of Chief State School Officers and the NCATE people get together for

no other purpose than for the chiefs to have the time to consider the issue. The NCATE issue—the whole issue of accreditation and what that is going to mean to teacher education in this country—is a very important one. I think before we either accept it *carte blanche* or dismiss it out of hand, that it behooves the chiefs to spend considerable time understanding and becoming better acquainted with what is proposed in the NCATE redesign. We have had national meetings on the arts and on the humanities, and I would hope that we can have a national meeting where the chiefs can deal with NCATE and the whole issue of the implications of NCATE and accreditation to teacher education. That is my first recommendation.

Second, I suggest we all look at the paper on school/university partnerships that John Goodlad mentioned today. I would like to explore this as it appears to be an exciting, different approach to doing certain things. I was enticed and delighted by his presentation to the group today. Let us take a look at another alternative.

DR. DUNCAN: This has been a very lively afternoon. Thank you all very much.

WISCONSIN NIGHT ADDRESS

THE ONE-ROOM SATELLITE SCHOOL

The Honorable Lee Sherman Dreyfus
Former Governor
State of Wisconsin

I have had a lot of privileges in my life. I was a professor at the University of Wisconsin at Madison, and then president and chancellor of a university. I later became governor of the state. I left that position to become President of Sentry Insurance, which is an international conglomerate. These movements from academia to state house to business are not standard in any direction. Only one other university president has gone to the governorship. He was Woodrow Wilson at Princeton, and the comparison ends right there.

Academics tend to look on the governor as sort of a snake-oil salesman or a piano player in a brothel. He is not part of the main action, but he is helping. I hope that Al Shanker [President, American Federation of Teachers] made you understand that academics and people in education need to understand the political process and be able to deal with it. The university still does not understand that. The legislature is now filled with the university's own product. The university people are now having the worst time of their lives, and that ought to tell them something.

I am delighted to have this opportunity to speak with you. I do not get a chance to get back to education very much. I am on the corporate annual circuit and the national convention circuit. This is a chance to return to my own field. I simply jumped from university president to governor. (By the way, I was never a dean or vice president. I looked on those people as mice who were studying to be rats. When I suddenly got my own piece of cheese in the statehouse, life changed.)

On election night a young reporter sat with us in the early hours of the morning. There were quite a few people hanging on. The reporter said, "Boy, you are really lucky. You were chancellor of the University. Now you are going to be the governor of the state." That is true. I was really lucky and it was a great privilege.

That night I began thinking that both houses of the state legislature were in the hands of Democrats, the mayor of every major city in the state was Democratic, my president was Democratic, and both houses of the federal legislature were Democratic. I was not sure how the reporter was using that term "lucky." It reminded me of the lost dog advertisement in the *Manawa Advocate*. (Manawa is just east of Stevens Point. Joe McCarthy was born there. That is its infamy in life.) The advertisement said, "Dog lost. Walks on three legs. Blind in left eye. Missing right ear. Recently castrated. Answers to the name of 'Lucky'." I think there are some similarities there.

This makes me think of when I was in the R & D center, which was my only brush with pedagogy. I was in the education R & D center on the campus with Klausmeier, Goodson, and that bunch. As I watched some of the research, I was reminded of the story of a man who wanted his flea researched. He put the flea down, told it to jump, calibrated the distance covered, the trajectory, the ergs of energy, and the amount of time elapsed, all very carefully (this was an HEW grant) to the fourth decimal place. Then he took two legs off the flea and told it to jump. Of course, there was a lower trajectory, more ergs of energy, more time elapsed, and less distance covered. He got down to the last two legs, took those off, and told the flea to jump. The flea did not move. So he screamed at it to jump, and there was still no movement. Finally, he brought in reverberation electronic equipment (with additional funds from HEW) demanding that that flea jump. Of course it did not jump, and then he put in all the zeros and applied T-test and chi-square, and came to the conclusion that if you take all the legs off the flea, he goes deaf.

Let me talk to you about what I think is going to happen with your jobs. We are in a watershed time in our history, a time that is

difficult to understand until it is all over and one has a chance to look back. John Naisbitt, author of *Megatrends*, says we are going into the "Age of Information." We were in the age of information long before Naisbitt ever thought of writing his book. In fact, as of 1972, there were more machines communicating with machines, in terms of the quantity of both machines used and the information transferred, than there were people communicating to people.

What will be the long-range impact of the computer? Will the computer be as widespread as television? Will it be a fad? I myself was part of the [electronic media] revolution. I had a perfectly respectable Ph.D. rhetoric degree and I moved into things like teaching parts of courses on comics and the television. My colleagues were saying, "Will there be a doctorate offered in Tarzan next week?" They did not understand that anything read by forty million people must have some impact on society. This resulted in quite a struggle academically. It was not pure enough, especially for the English department, where they still waste their time reading *Paradise Lost* instead of *Areopagitica*. The real issue will be "The World Age of Interconnection."

You are about to deal with that whole new generation of American eagles and I think they are critical, not only to this country, but to the world. Are they changing? You're darn tootin' they are. My oldest grandchild just turned fifteen and he is really into computers. He likes coming up to our place where we have an IBM PC—in fact, he is trying to talk me into buying him a modem so he can connect with a network of information systems. I was watching TV with him the day the Ohio savings and loan, Home State, was padlocked and chained. The crowds were outside and the police officers were there. Nobody could get in or out. He said, "That's dumb." I said, "I beg your pardon. They cannot let any money go in or out of that place until they find out exactly where everything is—we had to do that in 1933 to every bank in this country." And he said, "I know, but if they did not unplug the mainframe computer, Grandpa, and the bank president has a terminal, not only can he change things, he can also back date them." And I thought, "I hope Governor Celeste is as smart as this kid." I had been sitting on a bank board the best part of the last twenty years, and it suddenly dawned on me that we do not

take money in and out of the doors—that is not where the money moves. Some petty cash goes through, people cash checks. But the real money that moves in and out of banks does not go through those doors, and that padlock was not worth two hoops in Hades if they did not unplug the mainframe. I have a hunch they did not and that is what is causing some of the problems now.

We have not used our interconnection for this conference. I would think you people should be able to interconnect easily at least once a month on a video teleconferencing basis. We just do not use the equipment. In 1965, I was heading broadcasting at Madison. On Memorial Day I took my broadcasting crew into the West Bend, Wisconsin High School and connected the French class with the English class of the Henri Lycee Quatre in Paris by satellite. I just watched these American kids in West Bend struggling with their French and the French kids using their English! As far as I know, that is the last interconnection of that kind—what a shame!

I grew up in Milwaukee—there is no reason why Robert M. La Follette, Jr. could not have been a part of my education by the telephone. I suppose by the time the teacher went to the department chairman, curriculum director, and the assistant superintendent for approval, La Follette was dead. We really are not utilizing existing capabilities in this age of interconnection. It may be that we are entering the age of the one-room satellite school.

Now, I am convinced that if you cut out all educational television tomorrow, it would hardly create a wrinkle, and isn't *that* a shame. But if you cut commercial television, you are going to hear about it because it is educating. It absolutely is educating in terms of a mass society. There are 18,000 new hours of television in this country every year; that is literally fifty hours a day. You cannot watch it all. When you are turning out 500 books a week, it will take you a pile of time just to read the titles of those. There are 8,000 radio stations broadcasting and 65 million newspapers published every single day—creating a communicative environment of almost incredible proportions, and "you ain't seen nothing yet."

I can live in Stevens Point, a town of 23,000, and operate on the national speaker circuit with ease, as long as I have access to an aircraft. Fortunately, before I left Sentry Insurance, we bought Midstate Airlines, which is

our commuter link, and put in some larger airplanes that I can fit in. With this physical link, a satellite dish, and the interconnection of the cable. I am simply not out of it. In fact, my concern is that if there is going to be a rube in the future, he is probably going to live in the heart of New York City, in terms of being out of connection. That is what is changing radically. With access to telecommunications, this meeting could be held anywhere in the country and essentially accomplish the same things.

Now there are some potential dangers here. We could create a transistorized mind, excessive uniformity among people. Educationally we could become like Detroit-made parts, totally separate but absolutely interchangeable. My doctorate is actually a doctorate in propaganda and persuasion, with a minor in dialectical materialism. We called it that because we didn't want Joe McCarthy to know what we were studying. But the difference between propaganda and education lies precisely in that nonuniformity. *Education* comes from a Latin root word, *educar*, meaning "to free, to liberate"—and the relationship between liberty and library, both having the same root base, is absolutely critical. But there is some junk being taught in schools. Everytime I signed a diploma, I thought half of what the students learned was garbage, but neither I nor anybody else knows which half—that is the critical issue.

You need to know what teaching should be taught. That is, what is it all about in terms of a universe of ideas? You also need to know who those students are. I think back to my own teachers, and I believe some of them sensed that I could do some things with my life. I owe a great debt to some of those people. I think of Miss Inez Strome. This was just before World War II. I tell you I learned that her title "Miss" was the same as "Admiral." She absolutely demanded the command of English rhetoric, and no matter what I did for that woman, I could not get an "A" out of her. And wherever she is now, in that curriculum center in the sky, I bet you all the margins are an inch and a quarter.

In fact, I remember she gave an assignment to write an essay on *The Scarlet Letter*. I was feeling my oats—I was president of the student government, and thought I was Mr. "Hot Shot." I wrote my essay, only I entitled it *The Red Badge of Courage*. Miss Strome was having

none of it. She would not accept the essay. I was to get it rewritten by Monday, or I was going to get a failure for the assignment. So I went home and talked to my father about the First Amendment to the United States Constitution and told him that I needed his help.

He decided that I had a right to do what I wanted and that he would back me. But then he took the time—and therein lies a difference—to let me know that he thought we would win the battle, but that I would hurt Miss Strome. He said, "I want you to know that that is the price of what we are going to do. Are you sure you want to do that to her? This is obviously very important to her." By the time I had thought this through, by Monday, I had a new essay with a new title and turned it in. Fortunately, I had both a good teacher and good parents.

That is changing in part because, in fact, we are changing our teaching cadre. My generation probably had the most superb teaching cadre we will ever have in the history of this country. Why? Because women did not have any options. They only had three fields they could enter: nursing, secretarial work, or teaching. Now you figure out for yourself where the best and the brightest went.

If they were not going to bear children, if they were not going to be nurses and they were not going to be secretaries, they wound up teachers—in fact we had them restricted. They could not do anything with their social life, and they sure did not go to singles bars. I do not think one existed. And in summer, they either went to the university for more education or travelled abroad.

Everything I knew about foreign countries before I hit the U.S. Navy, I learned from those teachers and what they did with their summers and their life. That is a time that has passed, and I think the benefits now vastly outweigh the negatives. But I am convinced there was a superior teaching cadre and I think it shows in the leadership in this country.

Is there a danger of a transistorized mind, a plugged-in mind of preprinted circuits, very little heat, and very little energy? You bet there is, especially when we have the President of the United States address the citizenry and immediately following, on every network without exception, there is an Eric Clarified who will tell you what the man really said and what it really meant. Therein lies a problem for you, because the citadel of defense is the human

mind. And turning that mind on, whatever it is that creates that curiosity, that love, is what a teacher must do. By the way, I am absolutely convinced that teachers teach primarily what they are, before they teach what they know. And those of you who are involved in any way with, or set the standards for, teacher selection, know that their intellectual curiosity and their moral and ethical quantum are absolutely critical, maybe more critical than anything they do by way of grades.

Now I hope that is one of the things the computer is going to teach us because up to this point in education, we have placed undue emphasis on storage and retrieval functions of the human mind. I know because I had a super storage and retrieval mechanism given to me as a gift at birth. Consequently, I got all the honors, the grades, the Phi Beta Kappa key, the Ph.D., the full professorship with tenure, and all the head feathers. Once you acquire all of those, you can be as dumb as you want—that is the security that goes with those head feathers. But the honors were bestowed because I could store and retrieve information and put it back out. Maybe the computer will teach us that that is not education and that is not the end goal—education teaches you to use your capabilities in terms of thought processes and making decisions about things in life based on ethical, moral, and humanistic principles.

Let me give just one example. Dorothy Meredith is now a retired professor, University of Wisconsin, Milwaukee. She was my art teacher at Peckam Junior High. Dorothy was faced with our class of square-headed German kids. She was trying to teach us some sense of her love of art. I was given an assignment to carve a horse out of Ivory soap. I had to bring the soap from home and take the chips back because soap was expensive. Sculpting is not an area where I have absolutely any capability whatsoever. The only remaining hope for me in the field of sculpture is that I may be a latent primitive! Otherwise, it is just zip. So I carved a body, four legs, a trunk, and a head. I did not like that kind of assignment. I would rather do math, forensics, theatre. I did not want to compete with anybody in carving horses.

That was in 1938. Thirty years later, I was the Chief-of-Mission for Higher Education in Viet Nam. The Minister of Education had been assassinated, so I went over there to find

a man that President Thieu would approve of. Finally, after a few months, I headed back to this country. I was tired and tense. I had spent part of my time in the Demilitarized Zone at Hué. After the Tet offensive, we were not sure who was going to do what. So I decided to come back through Europe, where I could take my time. While in Rome, I was able to stand in the presence of the Pietà in the Vatican.

And at that point, there were just two sculptors, Michelangelo and I. I could sense kinesiologically what kind of hand, eye, and mind it took to create that impossible creation. I was so moved by that, I went back to the Hilton and wrote a note to Dorothy back at the university. I said, "Dorothy, I now understand that assignment to carve a horse back in 1938." When I got home, Dorothy said, "You always were a slow learner, but I knew you would eventually get it." My point is that she helped me to appreciate this great work of art, thirty years later.

Many of us were given meaningful legacies by our teachers and principals. I went to Washington High School in Milwaukee. George Balzer was our principal. Many of the guys who were later shot down in Germany never noticed the difference between the stalags and our high school. They were well prepared and trained because that was the way the school operated. In fact, the president of Northwestern Mutual Life here in Milwaukee, Fran Ferguson, had four missions in Europe: Four B-17s, and he crashed three of them. I said, "Heck, they should have given you an Iron Cross." On his fourth mission, he was captured and spent two years in a stalag. He said you could not tell the difference between Balzer and the camp commandant.

There is a danger, I think, in the direction we are taking in education now. We are clearly national in our educational process, so that you people cannot get too far out of line. Notice that I am not saying "federal." The fact that you are chief state school officers is very important to me. If I had my option, I absolutely would eliminate the U.S. Department of Education. I do not believe in it. I think it is a creature of the National Education Association (NEA), and I would remind people that the word "education" does not appear even once in the United States Constitution. We ought to listen to our forebears. They certainly under-

stood the importance of education and that it should be on the state level.

But public education is today on a nationwide base. Because we are the most nomadic tribe of people in the world, this mass media environment has great impact on us. We are literally pushing our families around from one state to another. Every year, one out of every five families will move to another state. If a third grader moves from Stevens Point to Shaker Heights or Cleveland, Ohio, that youngster is expected to plug in. So we cannot attack any of the basic assumptions about nationwide norms in education.

I have not the slightest idea why youngsters start school at six or seven. My bet is that it is because we were once a rural agricultural nation, particularly in these northern areas, and kids did not start school until they were old enough to make it through the snow on their own without being carried. It is probably just that simple. I know why they teach reading right at the beginning. In a one-room school, when the teacher is working with the seventh and eighth graders, the others had to be doing something. The reading skill had to be learned early. I suggest that we probably should not be teaching any reading at all until children are about ten or eleven years old, because by hammering at them at six, seven and eight, we may destroy for some the love of reading forever. You have really taken something of consequence from a human being when you do that.

But it is not feasible to do that in this country. If an educator tries to say nobody is going to learn to read until fourth grade, then he or she better figure out what other job field to enter. We are locked into an absolute national system—with the nomadic society, as well as the mass media society, fostering our development into one nation, one culture.

Now, can that happen internationally? I think it already has. I am absolutely convinced that the growth of mass media generates a world tribalism, a world uniformity. The American Association of Colleges and Universities sent me on the first academic mission to Peking in 1975. Mao Tse-Tung was then in power. It was the first time I have been anywhere in the world where there was no impact of our mass media. It absolutely startled me. I went back there six years later, leading a trade mission as governor, and life had changed greatly in those six years. There were antennae

in southern China. People were watching the TV out of Hong Kong—youngsters were jamming video game-rooms—life had changed radically with the invasion of the mass media and high tech.

We need to understand that, with our mass media, we are the most culturally aggressive society in the history of the world. We need also to understand cultural sovereignty. We are having worldwide impact culturally, and some nations are trying to resist it. I would argue that Japan is the most defeated nation in the history of the world. The Roman Army never influenced culture, in all its meanderings in Europe, as we have in done in Japan since the War. The atomic bomb was a peanut, zip, compared to the ideological fallout. Deal with a twenty-year-old Japanese female in Tokyo today and you are dealing with an American woman. Culturally, she is not forty but four hundred years removed from her grandmother!

The old Japan of 1945 is obliterated. It does not exist, and that is because of the impact of the media. In this country, the media revolution has to have impact on the students in general. Teachers had better increase their awareness of this.

To me, any elementary school teacher who does not watch Mr. T ought to have his or her head examined. If a teacher does not understand where that lingo is coming from, the first time he or she hears some kid say, "Pity the poor fool," he or she will ask, "What did you say?" instead of saying "You say that again, this time I am going to let you live." That [latter response] would create a bridge between those two, the minute he or she said that. We need these VCR's and VHS's to be aware of the environment in which these youngsters live. Television is doing some great things educationally. But it did not live up to the promise of the 1950s, no question about it.

Now, where is the computer going to take us? Well, I have got some notions. I think the term "Goodbye, Mr. Chips" is going to take on very new meaning. But the key is that we are learning that storage and retrieval never was education. We have unmasked trivia—it is now a national game and they are selling it as a game, the most popular game in America. I used to teach the large lecture sections in mass communications and economics, classes of several hundred. I had twenty-three teaching assistants who were taking their doctorates with

me who made the real connections with those students. While I did not get to know all of those students, I now run into them all over the country. They say, "Am I glad I took that course—I am really good at trivia in that area." That was my midterm exam—12.5 seconds per answer, 225 questions, 50 minutes. They called it "The Bomb"—the "A" students would get between 210-215 correct. The point is, we now understand that that is not the function of education, that information is something to use, and in many cases only when you want it and need it. In fact, the people who are purveyors of petty accuracy are not good teachers. That is not what it is all about. One can only hope that they do not destroy the individualism of their students.

On that point, I think of my son [Lee] who is an attorney in Waukesha, Wisconsin. When he was seven years old, he was in a female world with his mother, his teacher, and an older sister. As the Gesell studies indicate, it is very essential for a seven-year-old boy to be right. He cannot give an inch, especially to all those females who are attacking his security. He and his sister were arguing over the name of Tonto's horse, and he said Tonto's horse's name was "Prince". His sister Susan could not remember the horse's name, but she knew it was not Prince, and she kept arguing with him. My wife was preparing dinner at the time. I had come home from the university and was trying to avoid all this. My wife said she could not remember the name either, but she was sure that it was not "Prince." She said, "You make him admit he is wrong." I continued reading the paper. In the process, Lee was just substituting lividness and volume for fact, a typical tendency of young males—something most males tend not to outgrow either.

Susan left the field of battle to practice her violin. She then remembered Tonto's horse's name and shouted down, "Tonto's horse's name is 'Scout.'" I could hear my wife just drop everything. She came out and said, "That is right. Tonto's horse's name is 'Scout.'" Now you make him admit he is wrong." He looked at me and there he was, beaten, trapped, defeated. There was no way out. He knew the horse's name was Scout. But all of a sudden that beautiful mind went to work, and he lit up like a Christmas tree. He said, "That is his last name."

I submit to you it is critical in education not

to insist on that accuracy. If we learned anything, at least those of us who are Depression generation or played mumblety-peg, we learned that you never cut out all of the territory or there is no game. That is as true with children and the teaching of those children as with anything else.

On the other hand, I have some concerns about how far we should go in eliminating storage and retrieval of knowledge. The Machine and the Industrial Age have produced everything we have, but they have also brought Vic Tanny, jogging, and coronaries. Can you imagine a hundred years ago, in 1885, forming a club where people can come and lift things and push? They would have put you in a looney bin. There was no need at that time.

Now I worry about the impact of the computer. What happens if we totally eliminate the need for memorization? All of the poetry I know I learned as punishment. I am grateful for that. I was usually shooting my mouth off and told, "Until you can recite 'Ozymandias,' you cannot leave the room."

My wife went back to school as a latter day student, so to speak. Since I was chancellor of the university, that wasn't the easiest thing for her to do. She was afraid she was going to be a dummy and worried about that. Some of the faculty would try to communicate with me through her and she would just drop courses. Some of the faculty tend to be a little obsequious in relationships with chancellors anyway. I remember a Persian professor, who had just arrived from Iran. He spotted her name and said, "Are you related to the chancellor?" She said, "Only through marriage." So that saved him for about six weeks.

Joyce went out for theater. She would take a part and have the play memorized in a week's time, while the kids would be struggling with a few lines. We really need to examine how far we want to go with the computer, which is in my opinion, a forklift for the mind. We need to try to predict what the consequences will be.

In 1976 I was a consultant in education and mass communications in Taiwan. One of the decisions they struggled with and made was to eliminate the arithmetic process and put kids onto calculators immediately in the first grade. I do not know if that was a smart decision. Some of my arithmetic skills I no longer have. I used to be able to do cube roots and square roots. I can't do any of that now. There is something comparable between exercise and

arithmetic. How far do we wish to go? I am not sure, but I think somebody has to get at that and find out.

At any rate, what is going to happen? I am convinced education could return into the home and computers could take it there. Education is not going to wait until age six or seven. In fact computers are going to replace the *Encyclopedia Britannica*, which is what my parents' generation bought for us. So the grandchildren can "have advantages." I cannot believe that you have not heard that phrase, sometime in your life. That was the first thing we bought, when we were living in a barracks out in Badger Village. We had a cabinet, made of mahogany, filled with *Encyclopedia Britannica*, so that their granddaughter, our daughter, could have advantages.

Today, I put computers in the homes of my grandchildren. I put in two things, a Baldwin piano and a computer, because I want them to be able to play with them. Look at what the prereading are able to do. They do not have to go through the business of the sheer motor skills that go with writing. I think of that Bill Cosby routine where he talks about when he was learning an "A" and a "B" and he says, "May I have another sheet of paper?" There is no question about problems in those skills. But I tell you, punching a "P," coming up with readiness words, and watching Sesame Street is doing a lot of reading readiness. I really believe education is going to move back into the home.

One of the recommendations that I made to American Seating is that they start designing their equipment and furniture now to accommodate the home. They need equipment suitable for both the home setting and a computer communications center.

The commercial education industry, I am predicting now, will grow. Information is now worth money. When that happens people are going to get into it, both those who are willing to pay and those who are willing to be paid. I sit on the board of a relatively new company that is struggling along now called New Era Technology (NET) at Madison. They already have over 9,000 programs in their computer operation. It is all software evaluation related to the teaching field. Eventually, through AT&T or whatever, teachers will be able to identify and receive the specific programs that might be of interest to them, all through tele-

communications. And by the way, that has some implications for textbook publishers, at least for the sales people. I am so convinced that interconnection networking will cause such radical changes in publishing that, if I were those people, I would start looking into other fields.

NET is in effect going to become an information broker. Information is going to be brokered, as stocks are now. NET, or somebody like them, is going to be the E. F. Hutton of information brokerage. Let me make a few other predictions. Children's television sponsors are going to change from products that went into the mouth to products that are going into the eyes and ears. Watch this, it has already started. You are going to see mind consumption become the key sales indicator, rather than what goes into the stomach. That which goes into the mind has lifetime implications and, therefore, I think this is going to be critical. I think education had better be prepared to have a piece of the action. Because once you get to the age of interconnection, through satellite, cable, or other linkages, people are going to be consuming education like never before. Interconnection will be particularly important to the elderly, and they are going to go back into education in aces and spades.

Now this will create problems for the classroom. You are going to have a generation of youngsters coming to you in about a decade, who have been conditioned to individual education at their own pace. Think about that. For many of these youngsters, the group dynamic will be an interference. That poses very real problems in your field.

Could the solution be in tripling the number of teachers? Probably not. I think we will go back to where we were in the nineteenth century, when we had a great many students teaching students. That is going to be a nifty addition to education. All teachers that ever taught know when they really learned their field. They learned it teaching it.

I remember the first class I taught in speech. Mr. Weaver was chairman of the department, and it was his book we were using. Five weeks into that semester, I went in to see him and told him I had gone through the whole book. I really felt I was something and would be working with the great ones. And he said, "Lee, why don't you go around again in case they missed something?" It took me about

three semesters to cut my teeth on students before I understood the importance of pace and level. I had to learn that reception, not transmission, was important in that class. You are talking about the teacher as the transmitter and that youngster as a receiver.

For some, the existence of the group will interfere with that receiver. The solution, I believe, will be more students teaching students. We may even see an intermixing of ages and categories. It will not be called the one-room school; there is another term for a one-room school with an intermixing of ages. Now it's called "ungraded." Most of the great leadership in this country came out of those one-room schools. I do not know why we knocked them off. It seems strange that we wreck something when it works. It is almost like the government fixing AT&T.

The classroom of the year 2000 will begin for the first time genuinely to integrate with the external community. Technology will shape that classroom and that relationship. The technology of Gutenberg in 1456 created the classroom we have now. Auditoriums and classrooms are for the most part like printed pages. There are lines in a row, numbered from left to right. Indeed, that printed page absolutely dominates how we sit and think in most cases. What will be the impact of computers, computer forms, and television? I do not know yet, but there will be an impact.

Now, is it important that the symbols affect the technology and the technology affects the architecture, the learning process? You're darn tootin' it is. Let me give you an example. That is why we are where we are and why the Chinese are so darn far behind. But they are gaining on us. Look at that culture. When my ancestors were painting themselves blue and living in trees in Germany, the Chinese already had universities. What happened? They had printing technology 1300 years before we did, but they could not use it because they had a pictographic language. It was not utilized until the middle of the fifteenth century by Gutenberg, because of an alphabetic language with only twenty-six symbols. With that, one can produce mass print, a rotary press, and a type-writer.

In fact James Watt's steam engine, and trains and ships, are not as important as that rotary press that produced 20,000 pages of a newspaper in one hour. Once that started in 1833

or 1835, public education was an absolute necessity to create the readership that could read those papers. In fact, technology will now decide not only what is to happen in our system, but also who is going to run the world.

The high tech of the 16th century was navigation and only four countries had it. The little countries of Portugal and Holland dominated the world along with England and Spain. Right now, it is just as critical for us to lead in high tech. I think we are going to create a generation of outstanding leaders and just in time, because the Asians are back in the game now. They do not have to worry about a rotary press and steam engine. They now have equipment which can deal with 70,000 pictographic characters in a language. They do not have to simplify their language to 3,000 characters as they tried to do.

For us the problem is where education is going as we eliminate muscle work and mental work and become a nation of service workers. Now I just want to make one more point. When students come out of your systems they are going to live approximately fifty-five years. Of that fifty-five, they are going to work or raise children for ten years. That is all. I am talking about ten years, twenty-four hours a day, 365 days a year. They are going to eat and sleep about fifteen years. You add it up and obviously you have at least thirty more years of life in which something has to happen. That something is the quality of life.

That is where education pays off. That is why you get an education. I am convinced that the key task in your system is to create a student. Note my verb, *create*. If you can turn out of your system, people who are genuinely students and who feel the sheer thrill and joy of learning, you will have given them something they will have the rest of their lives. They can spend the rest of their lives learning. People now have the mobility and affluence to do it, at least in this country. The Third World is coming along; Europe is coming along. This is because we will teach the rest of the world that you do not redistribute wealth, you create wealth. We have created it in such incredible quality and quantity in this country, and that is something the rest of the world understands and appreciates. We have created it through education!

Thank you very much.

**PANEL DISCUSSION:
HAS COLLABORATION FACILITATED THE INTEGRATION
OF STATEWIDE SYSTEMS IN ADVANCING TEACHER EDUCATION?**

Gordon M. Ambach
Commissioner of Education, New York
Moderator

Presenters:

James Vivian
Director

Yale-New Haven Teachers Institute

Barbara Newell
Chancellor

State University System of Florida

Richard Boyd
Superintendent of Education, Mississippi

Ted Sanders
Superintendent of Education, Illinois

MR. AMBACH: On behalf of all members of the Council, I would like to extend our special appreciation to those who have come from the colleges and universities of the several states to be with us. We are very pleased to have had the opportunity to make new friends and colleagues. I am especially pleased that you could add the dimensions of your own personal commitment and experience in the colleges and universities as we have talked about this subject of collaboration.

On Monday morning I suggested that each of you might take a slip of paper, write down a prime objective of yours, and talk about it with your neighbor for a moment. I am not going to go back to that specifically, but I would hope that during the course of this morning's session you would think back on the note that you jotted. Please make an estimate of whether the expectation you had at that point has been realized at least in part, if not entirely. If there is something left over that you would like to have covered this morning, we can do that.

The morning's program as you can see from the printed program is divided into two pieces, our panel discussion until ten o'clock and open discussion afterwards. In our past institutes we have found that the last hour, with open discussion, is very valuable.

This is a summing-up session. Each of us

has a list of things that we take home. We have four discussants who will assist us in doing that. This is a time when ideas are consolidated; the deputies or others back home who are going to receive them begin to tremble a little bit, in anticipation of information needed or new ideas.

Our objectives, as you will recall from Monday, include learning more about collaboration between schools and colleges. How do we improve those collaborations? Second, we considered the prospect of a continuing Mellon Foundation grant. During the course of this week our Mellon Project directors and others have reported on the existing grant projects and discussed the specifications of a continuing grant. Some of you may have some comments about our next application. Third, we have thought about Council recommendations for action.

The first person to comment is Jim Vivian, who has developed and directed the Yale-New Haven Teachers Institute since its inception in 1978. The institute provides a partnership between Yale University and the New Haven public schools designed to strengthen teaching and learning in those schools. The project has nationwide recognition. Jim previously served in the national administration of the Upward Bound Program,

as a curator of education at the Smithsonian Institution, and at one time as legislative assistant to Congressman John Brademas. A particular connection for us is the central role he played in the 1983 conference. We all look forward to Jim's reflections on our programs and development since 1983.

JAMES VIVIAN (Director, Yale-New Haven Teachers Institute): Thank you. I welcome the opportunity this morning because it seems to me there is great value in the challenge of digesting, reflecting, and commenting on a week as richly informative as this one. I want to concentrate on three things. First, I would like to bring some historical perspective into consideration by reflecting on how far we have come, on at least a few topics, since the Yale meeting in 1983. Second, I will comment on the central issues two and one-half years ago when we met there. Finally, I will talk briefly about one topic that received an emphasis in 1983 that it has not received here. It is a topic that we should continue to stress when we talk about collaboration.

The 1981 Colorado Springs meeting, which I did not attend, appears to have been an historic breakthrough in direct communications between leaders of schools, colleges, and universities from across the nation. The continuation of that dialogue has had considerable practical value in establishing programs and initiatives, and in eroding some of the mythology on both sides that still, at times, impedes our work and obscures the profound relatedness of all the individual institutions in our educational enterprise. In fact, at the 1983 meeting a number of the participants remarked on the notable absence of that kind of mythology in our discussions. The purpose of that meeting, as many of you will recall, was to draw national attention to the role that colleges and universities can and must play in strengthening teaching in the nation's public schools. I would note that that was our agenda before the rising tide of reports and studies issued beginning shortly after we met in New Haven.

I would note also that in 1983 it was not immediately obvious that we would focus on teachers. The Carnegie Foundation for the Advancement of Teaching had commissioned Gene Maeroff, education editor for the *New York Times*, to prepare a special report surveying collaborative experiments underway across

the country. Gene discovered and categorized a wide variety of programs. In his report the section on teaching is, however, a short one, and he noted there that the small number of collaborative programs across the country that addressed teaching was truly a "sad commentary" on where the partnership movement then stood.

In 1982 the committee of chiefs that helped in planning the Yale meeting, especially Gordon [Ambach], urged that we concentrate on the view that we at Yale shared, the view that teaching is central to the educational process. That teaching has continued to be the focus for much of the Mellon Project and for this institute strikes me as significant. This is a signal of our priorities that we sent out from the Yale conference and will send out from this institute.

The 1983 conference concentrated on practice, on case studies of collaborative programs underway across the country, and on dialogue among the chiefs, presidents, and chancellors who were attending. Four recurring themes in their discussions were the issues of prestige, power, pay, and preparation for school teachers. There was general agreement among the parties present in 1983 that they might best work together on the preparation of teachers and thereby on the status of the profession. There was a concern throughout the conference about attracting, preparing, and retaining the best possible teachers, while at the same time fostering the morale, rewards, and further preparation of individuals already in the profession. Barbara Newell said at that time that we must make sure that all in the education profession share in the rapidly changing fields of human knowledge, and that collaborative programs must therefore be far broader than the schools of education and must involve the entire university community.

At the Yale meeting there was a realistic understanding that collaboration is no panacea in public education, but that it can assist teachers in specific ways. There was also an evident concern that the effective practices presented there be applied more widely and systematically. So we ended with a conviction, as Craig Phillips stated, that the real model that had been presented was the model of collaboration itself—that it can be done. But I would also recall Craig's comment on the concluding panel about the massiveness of the

undertaking, considering that there are more than 80,000 public schools in this country.

There is not time this morning to talk about all of the issues from the 1983 meeting as they have been reflected in the discussions here. I begin with an observation about what strikes me as the most sobering message to come out of this meeting. Speaker after speaker has referred to the necessity of radical action if we are to bring about meaningful change in teaching. Judy Lanier [Dean, College of Education, Michigan State University] spoke of the enduring traditions of the profession as "dysfunctional." Frank Newman [President, Education Commission of the States] spoke of this as a favorable time for radical action and coached us on some techniques and approaches. Albert Shanker [President, American Federation of Teachers] proposed major structural changes in the teaching profession. Mike Timpane [President, Teachers College, Columbia University] spoke of re-thinking the profession as "a root and branch operation". Now, if I had been a journalist at this meeting, I would have noticed that speakers repeatedly used that kind of language.

I mention, then, only two topics in relation to our discussion in 1983; first, the idea of what, in fact, the teaching profession is. In 1983 we spoke, on the one hand, of the negative consequences that have resulted from the stratification or horizontal divisions in teaching, and, on the other hand, of the benefits of collegiality among English, or science, or mathematics, or other types of teachers without respect to the age of their students. So, in thinking about collaboration and the reform or radical action needed to reconstruct the teaching profession in this country, it is, in my view, essential that we conceive of the profession as a whole, embracing the entire education community.

Second, with respect to the preparation of teachers, the emphasis here has been on pre-service education and the first years of teaching. As we began on Monday, Gordon Ambach listed five factors important in strengthening the practice of teaching. The fifth, which he termed "the continuing opportunity to learn," was stressed in 1983, but has received less attention here. So I would like this morning quickly to pull together some of the threads of the discussion throughout the week that relate to that point. We have heard, for instance, about the problems of retention: that indi-

viduals who remain in teaching are disproportionately from the lower quintiles; that there is little correlation between length of experience in teaching and effectiveness in the classroom; that lack of intellectual stimulation, collegial relationships, and serious discourse with adults marks the profession; that the recency of the teacher's own learning is an important factor in student learning; and that teachers are the largest white-collar group in need of continuing education at a time when lifelong learning has become a reality in our society.

To those points I would add another: nationwide, a high percentage of teachers have minimal formal preparation in their subjects. Let me illustrate by referring to the New Haven public schools. In that school system fewer than sixty percent of secondary teachers in the humanities and only about one-third of those in mathematics and science majored in college or graduate school in the subject they are currently teaching. Moreover, because scholarship in these fields is constantly changing, even if a high proportion of teachers had majored in the subjects they teach, they would still need to stay abreast of the new developments in their fields.

The present state of teacher preparation in the humanities and sciences will not be readily improved as a result of new teachers entering the profession. Nationwide, in the latest year for which these statistics are available, only about sixty-two percent of newly graduated teachers in the arts and humanities and about forty-four percent of those in science and mathematics were either certified or eligible for certification in the field they were currently teaching. There are already well-publicized shortages of qualified teachers in some subjects in certain areas of the country, even though the National Center for Education Statistics projects that the total demand for secondary school teachers will continue to decline through 1988. These shortages may well become more widespread as the children of the "baby boomlet," who began this year to increase total elementary school enrollment, begin in the early 1990s to enter secondary school.

Moreover, in many districts like New Haven, the current rate of teacher turnover remains at a very low level. In so stable a teaching force, many individuals are reassigned to teach subjects they have never taught before, or have not taught recently. I would remind you of the

New Haven teacher Ernie Boyer talked about earlier in the week, the teacher who was conducting a very engaging class on *Oliver Twist*. That teacher had spent four years in the Yale-New Haven Teachers Institute studying subjects in literature and history, had received a special fellowship for summer study in England, and was in the year following Ernie's visit assigned to teach mathematics—because he was the best qualified mathematics teacher available for the position in that particular school. I tell the story to illustrate the problem of low turnover and frequent reassignments for teachers in terms of the additional preparation such reassignments require. In short, to strengthen teaching in public schools, we must provide for the ongoing preparation of individuals already in the profession, as well as those now entering teaching. I say this by way of a reminder from the Yale conference that we know how collaborative programs and collegial relationships among teachers that stress common problems in teaching their disciplines can further prepare teachers in their subjects, keep them up-to-date in their fields, heighten their morale, and encourage them to remain in teaching. This kind of collaboration remains a most natural, logical, fruitful, and timely alliance. I would add that the collaborative work in this vein that we undertake now can begin to create the professional life, the conditions for teaching, that will help to attract and to retain those individuals whom we wish to enter and to remain in the profession.

I close with two final observations. First, in 1983 there was a greater precision and clarity in our use of the term *collaboration*. At that time it implied collegiality. Here the term has been used in broader and more varied ways. As we continue our work together, we will need to sharpen our use of the terms that apply to partnerships of institutions and to collegial work among teachers from those institutions. That we are only beginning this work is best illustrated by the Department of Education's survey last year, to which more than 9,000 out of almost 17,000 school districts responded. Of the partnerships that those districts reported, only about five percent were partnerships with colleges and universities, while more than two-thirds were with businesses. In my view, our colleges and universities must become a much larger element in the partnership movement.

Finally, I must make a point with respect to resources. Here we have heard very diverse views expressed. Steve Kaagan spoke about the power of small amounts of money and how, in that sense, the Mellon Project has been immensely valuable and will continue to be so. We also heard about the need to reallocate existing resources, including different models for bartering resources. We heard, too, what to me is a striking comment—that school improvement is too important to be left to volunteerism—and a related concern about providing financial rewards sufficient to foster serious and lasting collaboration among university and school teachers.

Where will we find these resources? In the latest two-year period for which the Council on Foundations has compiled grants information, total foundation support across the country for all projects concerned with teaching in schools was less than \$4.5 million. Only a fraction of that amount went to collaborative programs. Obviously, we cannot look to private foundations for the level of resources that will be necessary to promote the systematic and widespread establishment of collaborative programs. More important, I am convinced that collaborative programs that strengthen teaching will not be sustained if they exist on the fringes of institutions, or on the fringes of teachers' professional lives. Unless partnerships are supported and rewarded as central professional activities, they will lack rigor and status, and will not be taken seriously.

In conclusion, a measure of our own seriousness about collaboration will be the extent to which our schools, colleges, and universities across the country will have joined in supporting collaborative work financially. That is an issue that over time we will have to address if the movement for university/school collaboration is to continue to progress. Thank you very much.

MR. AMBACH: Next I will introduce Dr. Barbara Newell. Barbara is returning home, having earned her Ph.D. at the University of Wisconsin and having served at an earlier time as Assistant to the Chancellor of that university. Her experience and career in the world of higher education has been extensive, including becoming President of Wellesley College in 1972. Turning from the purely academic world, she was named U.S. Ambassador and Permanent Delegate to the United Nations

Educational Scientific, and Cultural Organization by President Carter in 1979. She served earlier at the University of Pittsburgh and the University of Michigan. In 1981 she was appointed Chancellor of the State University System of Florida, becoming the first woman in the United States to head a major state university system. Of special interest and delight to us is that she attended the 1981 and 1983 sessions, and therefore provides us with the historical perspective of our programs and development in the course of these three sessions.

DR. NEWELL: Thank you, chiefs, for letting me join you in these three sessions. They have been a major part of my continuing education, and a major thrust and interest of mine in Florida. I would like to pick up where Jim Vivian left off, with a discussion of funding and foundations.

Yes, the Mellon grant was a small grant, but a very welcomed one from my point of view. In 1981, as we came back from Colorado, we established an institute of education to bring about a collaboration of K-12 and university systems in Florida. Andy Robinson, the director of the institute, and I went to New York and knocked on a series of foundation doors. People had been most friendly and gracious to me when I was President of Wellesley. We said, "How would you like to help us fund a collaborative effort between K-12 and the university system?" The response at the Carnegie Foundation, the Ford Foundation, and others was, "K-12 and the university? Why that is an unnatural alliance. Certainly we would not fund the public sector."

Times have changed since 1981, and I think you chiefs have had a great deal to do with that shift. There are a lot of other parents to this new concept, Ernie Boyer and the Carnegie Foundation for the Advancement of Teaching, and many others who have fundamentally changed the climate in this country. Certainly the press attention to *A Nation at Risk* has played a role. The change is also a very real testimony to the flexibility and strength of American education and institutions. I am optimistic.

I have been asked to spend a little time on the history of collaboration. I call the 1981 conference "the conference of getting to know you." Our agenda from my perspective was, "Is the education that we have in America

going to meet America's future education needs?" We spent considerable time talking about that future. We talked in terms of the growth of the knowledge industry and high tech. Last night, we heard about it once again, as Governor Dreyfus discussed the age of interconnection.

We also heard of the rising international competition and the fact that America could not be complacent about the nature of our education and the work force we are producing because we would need a far more sophisticated and creative work force to meet the challenge of the future. We talked about the major demographic shifts occurring in America and the question of how the educational community could produce the work force that we need with the changing population and changing demands on education. We also spent considerable time in Colorado just getting to know each other. One thing we learned in Colorado is that collaboration had another meaning than "treason."

From Colorado we went on to Yale. My quick summary of Yale, although Jim Vivian did a far more complete job, would be that we learned that in America it was perfectly acceptable for the elite institutions to get involved. We talked about examples, we talked about subject matter.

Now we are here in Wisconsin. From my point of view, we have had a week of "show-and-tell," and some very exciting new ideas, be it the ROTC model or the nitty-gritty of combinations of arbitration and mediation. I think we have seen a great many states that have moved to experiments in partnership. One of the basic themes that we are beginning to discuss in this country is a single system of education. It has not been expressed in quite those terms, although one person said maybe we are going to get to a single budget, a single statement of priorities. We have not reached that point, but we are talking in terms of shared budget requests; local, regional, and collaborative boards; articulation agreements; teacher centers; and university and K-12 mutual support. We do see chiefs who are deeply involved in teacher education programs. This is just a small sampling of the show-and-tell. These activities are going on in all fifty states.

Although we are not together organizationally, at least we are beginning to recognize the tremendous interdependence of the schools and colleges and universities. But has

this collaboration had an impact on teacher education? Certainly I hope so. As I say, I am fundamentally optimistic about it all.

Let me go back to the Florida experience. It seems to me the Hawthorne effect is having an impact on teacher education; that is, attention breeds positive results. However, at this juncture there is considerable noise in the Florida system because of an overload in change, experimentation, and collaboration. We are really having difficulty measuring the impact of change because of confusion, overlaps, and contradictory directions, and experimentation is almost always brought forward without fully adequate resources. I fear, however, even with all this ferment, at times we forget the full charge which brought us together. Yes, we have remembered the question of competency, and are working hard to bring it about, but I am not sure if we have remembered the second half of our charge, to encourage creativity. Innovation must play a major role in America's future.

I am also not sure that we have really remembered the challenge of the demographic shifts that were a basic theme in the Colorado conference and here in Wisconsin. We speak of the educational problems related to single parent families, yet we still talk of parental involvement without really talking about parental support. We fail to provide multicultural education in our curricula and teacher training as the United States is experiencing the second largest immigration in its history.

But perhaps our biggest problem, if we are really going to make federalism work and learn from each other, is that we must learn to listen to each other. In Florida, we put in a five-year teacher education curriculum, and I do not believe we spent enough time reviewing the five-year curriculum that had been in place for about ten years in California. It is surprising how few of us have really taken full advantage of the resources next door.

I have become very conscious of the problem of "do we hear, do we evaluate, do we learn from each other," because in Florida we have one institution that has done a spectacular job in attracting the best and the brightest to teaching. The University of South Florida, in a cooperative agreement with the school districts of the west coast of Florida, has been able to improve its test scores and student profile dramatically, because public school

principals are spotting the brightest students, those they would like to see go into teaching. And the University of South Florida is recruiting these students as they would football players, putting them into a peer group on campus, and making them into a community. Then, interestingly enough, the west coast school districts assure those teachers a job at the end of the line. The idea has worked, but it has not spread.

Since it is so difficult to spread ideas from one part of the state to another, maybe the successful experiments can go from Florida to Wisconsin and then be initiated in Florida schools. I hope we will have this kind of exchange and really hear each other, because there is a tremendous amount of successful innovation in the field.

I was intrigued by Bud Hodgkinson's educational decades: the fifties were the decade of equity; the sixties, innovation; the seventies, relevance; and the eighties, excellence. I hope the decade of the eighties is called the "partnership for excellence," because through partnership we have the potential to use this recognition of the interdependence of all segments of education to truly change the way education is delivered in this country for well more than a decade.

MR. AMBACH: Our third presenter joined us as a chief state school officer last year. He did not participate in the earlier sessions. He brings to us a state's view of this week's sessions. Dick Boyd is currently State Superintendent in Mississippi. He has a wide range of experience in public education, including service as superintendent of Lakewood public schools in Lakewood, Ohio and superintendent of the Warren city schools in Warren, Ohio. He has also served as an assistant principal, teacher, and coach and is a member of the National Council for Accreditation of Teacher Education (NCATE). We look forward to hearing comments from Dick Boyd.

DR. BOYD: Thank you. This is my first summer institute, and if it is typical of the summer institutes, I am not going to miss one in the future. I am proud to be a member of the chiefs. We got together at lunch yesterday to plan this panel, and I think you could call us the "wrapping up the loose ends" gang. So I am going to touch on some issues that have not been particularly covered yet and elabo-

rate on other issues that people here have emphasized.

I want to talk about three kinds of collaboration in which state departments of education must engage if we are going to cope successfully with the problems of teacher supply, quality, retention, and recruitment. The first type of collaboration is with NCATE, the second is with the institutions preparing teachers and administrators, and the third is with the school districts within our states.

I have had two unique experiences over the past year or two that have caused me to think a great deal about teacher education and practice. I will refer to them in making my points this morning. The first experience was with NCATE. As Gordon said, for the last two years, I have been on the National Council, serving as the American Association of School Administrators' representative there. It has been a very satisfying and thrilling experience. As Rich Kunkel indicated yesterday, it reached a culmination seven or eight weeks ago in St. Louis when we gave birth to the new standards. It is a new NCATE now. It does have a new governance structure and a rigorous accreditation process with which everybody should be acquainted. I am very pleased that the chiefs are going to be a very integral part of NCATE. Therefore I want to second Bob Benton's [Superintendent of Education, Iowa] recommendation of yesterday that CCSSO give consideration to devoting a special meeting to accreditation.

The second experience that I had was in Mississippi, where I arrived eleven months ago to find the state in the middle of developing a radically new teacher certification process that includes program approval for the institutions of higher education that are preparing teachers. Those became effective just about a month ago on July 1, and I will say more about that experience in a minute.

Throughout those two experiences (NCATE and Mississippi), I had to admit to a mixed set of feelings that occupied me at almost every meeting. The first feeling was apprehension over whence future teachers will come if we raise the standards constantly. That is particularly true in a state that pays its teachers at the lowest scale in the entire nation. But opposing that apprehensive feeling was the gut feeling that both NCATE and Mississippi were doing what was right, that it was far better to address the quality issue and then the

quantity issue, rather than the other way around. It has been mentioned at least two or three times here this week that there is some evidence that raised standards will attract a new cadre of teachers, young people who will look upon a higher order of challenge and enter the profession, the kind of young people who did not enter before. I hope that is true. I was on a program with Emily Feistritzer a few weeks ago in Mississippi. As I drove her to the airport that day we spent the whole time talking about this trend. She firmly believes it will persist. I am a little dubious about it, but I hope she is right.

Talking about collaboration with higher education, two of our colleagues here this week have kept our toes to the fire by repeatedly asking the same questions. Saul Cooperman [Commissioner of Education, New Jersey] on several occasions has asked, "What is that body of knowledge that will result in successful practice?" Cal Frazier [Superintendent of Education, Colorado] has asked almost every speaker, "How will you know that what you are doing will have made any difference several years down the line?" To me those two questions are the crucial questions, and I think they are opposite sides of the same coin. In other words, successful practice by definition means that you will make a difference.

In Mississippi, virtually everything is becoming outcome-or performance-based, including the accreditation of our schools and the certification of our teachers. In our new teacher education program approval standards, we have reached the ultimate in collaboration, namely if teacher education graduates cannot perform, the institution's teacher education programs are not going to be approved. Now that may seem like the "John Dillinger" approach, and in some ways it is. But I do think, Saul, that there are some identified, successful competencies out there, and the universities are going to teach those competencies.

We received yesterday from Greg Anrig [President, Educational Testing Service] his inventory of professional functions of teachers. In Mississippi we stole from Charlie McDaniel [Superintendent of Schools, Georgia] the Georgia model of teaching competencies, and we have adapted them for use. Those competencies do embody much of what is known about successful teaching practice. From now on in our state, teachers after graduating from

a university will go through a provisional year during which they have to exhibit mastery of all sixteen of those competencies, each of which includes repertoires of skills. Their certification depends on their passing these tests. Further, a significant number of graduates from each university are going to have to demonstrate that proficiency, or we are not going to approve the program. In other words, we have tied successful practice together with what is being taught in the university in a collaborative kind of way.

Lastly, concerning collaboration with schools—and here I am addressing the issues of staff development, retention, and recruitment—teachers basically give four major reasons why they leave the profession. I think those are the same reasons that young people give for not going into the profession in the first place. Those reasons are low salaries, bureaucracy and paperwork, the problems of unruly students, and lack of public esteem. When we think about it, there is nothing that institutions of higher education can do about any of those four things. I do not think there is anything in those areas on which to collaborate with institutions of higher education. If there is not, then I think we are going to have to collaborate in other areas.

DR. NEWELL: Regarding your last comment on collaboration, I wonder if problems of bureaucracy, for example, are in part related to our training of principals. If we would work as much on new techniques of management in our schools of education as we do in business, we might have an impact. Look at the area of discipline. Again, this is very likely a problem that we could address in our teacher training and continuing education. On the issue of public esteem—it was mentioned here, and I certainly have been preaching this for four years—if we can incorporate the public school faculty within the milieu of the university, we can give the teachers a sense of belonging to a larger educational community. In my experience in the Boston public schools, the major benefit of the ruling that universities and colleges in the Boston area get involved in the public schools was the sense for public school teachers that they had some colleagues and that somebody really cared. Further, as partnerships in Boston developed, there was a change in the public image and understanding of the role of teacher. Again, I guess I am

the optimist here. It seems to me that those areas you mentioned are the ones in which we together should see what we can do to help.

DR. BOYD: Yes, particularly with the training of principals. In our management institute, we are emphasizing that they have a lot to do to raise public esteem for teachers and eliminate bureaucracy and paperwork.

MR. AMBACH: The thought occurs to me that in the standard preparation course for educational administrators, nobody ever talks about the problem of recruiting and retaining staff. It has been assumed that there were going to be plenty of staff around and available, and we all learned about other things.

ROBERT D. BENTON (Superintendent of Public Instruction, Iowa): I do not want this question to sound too negative. Was the decision to make continuing approval of teacher education programs contingent on teacher performance made collaboratively or was it in effect decided by your department or the legislature? I do not find many college people who really buy into that concept; I am wondering what the collaboration was like.

DR. BOYD: That is why I mentioned the Dillinger approach. However, there were higher education people on the certification commission that adopted the standards.

JOHN H. LAWSON (Commissioner of Education, Massachusetts): There is a reason that is not often mentioned as to why these collaborative activities have been very successful in Boston. It is something that the chiefs need to think about. First of all, the money for collaboration comes from the state budget. The money goes essentially to the schools, and they choose how the collaborative activities are going to occur. He who has the money feels very differently about the collaborative activities.

MR. AMBACH: Our fourth and concluding presenter this morning is Ted Sanders, now serving as the State Superintendent in Illinois, having previously served in that capacity in Nevada. Ted chaired our Ad Hoc Committee on Teacher Education, Preparation, and Accreditation and now chairs our Standing Committee on Teacher Education and School/Col-

lege Collaboration. He is a former member of our Council Board of Directors and has also had a great deal of contact with NCATE. We turn to him particularly for thoughts about our Council follow-through after this week's discussions.

MR. SANDERS: I have always looked forward to the summer institute, since my first experience with it in 1979 in Vermont. It reminds me of some experiences from my childhood. I had the good fortune to grow up in an unusual time on the high plains of Texas. My father was there as part of a federal government mission to open up the high plains to farming. That particular area of the country did not succumb to John Deere's self-scouring plow as early as most of the Midwest, thanks to the fact that it was an arid land, and the technology needed to draw water from deep within the aquifers in that region was not available until the end of the Great Depression. Even following the Depression, it was still a harsh land.

Yet, amid that harshness thrived several fine traditions which I remember very well. One in particular, I can fondly recall, came at the close of the harvest season when every church had a revival meeting. I came to respect the inspired leaders of those revivals, who year after year motivated people into action. I do not know where those churches found the Craig Phillipses to arouse the interest and involvement of their members time after time.

It is with that same kind of respect that I have come to look at the summer institute. As I reflected late last evening on the notes I made from this conference, I again found a wealth of ideas—written in the margins of about thirty-two pages of notes to take home and explore. A lot of individual action follows this meeting every year. As Gordon mentioned and I am sure you can attest, there are bountiful ideas on each of our notepads.

My task, however, is not to discuss those ideas that I will raise and explore in Illinois, but to outline several corporate actions for us as a Council. In fact, I identify six corporate or agenda items for the future. In many cases, work has already begun.

The first is a continuing need for a national presence in teacher education. We have been engaged in three efforts, each described here today, to address issues in teacher education and preparation. We have not taken another

stand within our own organization that carries more potential for affecting education than this one. Dating back to Anne Campbell's tenure as President of CCSSO, this particular area has been an important and emerging agenda for the chiefs.

In January, 1984, an ad hoc committee created specifically to study these topics issued its report. Just over a year ago, thanks to the Exxon Foundation, ten chief state school officers and ten deans from around the country met in Lincolnshire, Illinois, to revisit the Council's report and talk about issues surrounding teacher education and preparation. Yet, none of the activities described, or even the emergence of NCATE, satisfy the yet-unrealized need for a national presence in teacher education. It remains an extremely vital part of our emerging agenda. We must look beyond these meetings and the Lincolnshire experience to the proper forum and format for a such a national presence.

The second agenda item, to echo a well-known political figure, is the need to stay the course. We have made a corporate commitment to the emerging NCATE. We have reinvested the human resources of this organization into the vision of the new NCATE. We must commit ourselves to continue that investment and stay the course, for at least three to five years, to give that new design the opportunity to demonstrate whether or not it will realize its potential.

Thanks to the presence of the chiefs, the governance structure of NCATE has already changed dramatically. The standards, according to Rich Kunkel, are now in place for dealing with institutional or unit accreditation. However, there are still a couple of components in that governance design and the future NCATE that remain to be defined at this point. These include a set of standards to sanction program approval activities. As Bob Benton suggested, this agenda is important enough that we ought to convene the chiefs at an appropriate time to examine the new governance structure and the standards of NCATE. I think there is an ideal time to do that, but such a meeting should be timed to allow chiefs to comment on these new standards before they are finally adopted by NCATE.

In the months ahead, we will have a much more significant role in the governance structure and the presence of more than one chief

within that structure. In fact, we will be represented at the same level as the American Association of Colleges for Teacher Education (AACTE), the deans of the institutions, and teachers. But as we become more immersed in these activities, we will be ensuring that we keep to that important corporate agenda: to stay the course, and to continue our participation, our collaboration, with NCATE. In fact, in the structure of NCATE, collaboration is not just a cliché. It is reality.

The third corporate agenda is to complete the unfinished work laid out in our own report, *Staffing the Nation's Schools: A National Emergency*. That report, you will recall, contains some thirty-six recommendations that were classified in four major categories—attracting, preparing, licensing, and retaining teachers—as well as a suggested research agenda covering those four areas. We have not completed the agenda that is laid out there, and we need to individually and collectively revisit that report. We will have that opportunity because the chiefs have received an extensive new survey instrument from me that is designed to determine where we are with those recommendations specific to chiefs and state education agencies. Some of the simple action recommendations that are contained in that report suggest an even greater need for collaboration among chiefs.

Let me briefly address one of the action recommendations which typify the need for greater collaboration among ourselves: demographics. We have heard repeatedly, not just in this conference, but elsewhere in the land, of an impending teacher shortage of major proportion. One of the things our committee has learned, as we talked among ourselves and with some of you, is that the impending teacher shortage may be a myth. You will find factored into our survey instrument a first attempt to determine what is known and what data bases exist for the country and each state regarding teacher supply and demand. We must get a grasp on these demographics to help ourselves corporately and collectively plan for the future. Consequently, we do have a significant unfinished agenda item in our own Council report. In fact, as you re-read and reflect on those recommendations, you will notice many opportunities for collaboration.

A fourth corporate agenda is the opportunity to influence the Congress and the reauthorization of the Higher Education Act.

We have a unique opportunity, since the Act is up for reauthorization, to shape it based upon what we have learned in these meetings and in the activities carried out in the Mellon Project grants in our states. We have the opportunity to influence the Act so it indeed addresses our collective view of the agenda, requires collaboration, and builds on the successful experiences that we have had together.

The fifth corporate agenda item is the need for us, together, to influence the emerging laboratories and centers. They have been substantively reshaped in the last couple of years, and that competition is nearing completion. All but two of the regions have apparently made decisions about what organizations will serve as the laboratories. The center competition continues, and we have an ideal opportunity to shape and also to invest ourselves into each of those respective activities. They do invite collaboration and investment on our part, corporately and individually, in their efforts to realize their potential. The labs, not only in the reshaping of our mission and governance structure, call for a much greater role on the part of chief state school officers. That is no accident. Rather, it is a recognition, on the part of the National Institute of Education and the study groups that supported the redefinition of the laboratory missions, that you are to play a uniquely important role in the missions of those laboratories. So this is a major mission in which we must invest collaboratively with our colleagues.

The sixth is to continue the efforts of the Mellon projects. Mellon II is a practical reality. We must realize its full potential. We must ensure that the activities we focus on in those projects do indeed address issues and problems of major consequence; are potentially adaptable to other states; require collaboration; and have sufficient flexibility to ensure diversity in the problems and the solutions. In the meantime, back in our own states, other opportunities are presented by existing and old federal legislation and by emerging and existing missions in our own agencies. We need to "put our money where our mouths are"; that is, open up our own efforts and responsibilities and invite collaboration in a way that we have not done in the past. Thank you.

A. CRAIG PHILLIPS (Superintendent of Public Instruction, North Carolina): Let me

address Barbara's comment on funding. I do not believe we have talked enough yet about the major funding requirements when we talk about collaboration in teacher education. What does it cost to educate a teacher? The medical profession can speak clearly to the per capita cost of educating a doctor. Maybe some of our discussions should be more clearly built around what those actual costs are. Maybe we need as part of our corporate agenda to be creating situations where we can speak directly with legislative leadership. Have we got a message coming out of collaboration that would speak directly to legislators? As part of a quality assurance program in our state, we worked with our university leadership to put together some figures on what it costs to educate teachers. Barbara, are you in Florida at a point where you can discuss real costs with decision-makers and develop enough credibility with them so that you can depend upon them to develop other sources of funds?

DR. NEWELL: This may sound like heresy, but I do not think our basic problem is resources. This is the right decade to make shifts, because looking at schools of education, we discover a marked decline in students coming through, and in most cases the appropriations have not declined as much as the enrollments. This is a moment when there is a little bit of leeway. This is a time when a dean of education has an opportunity to shift resources, to allow people to spend some time thinking about where they ought to be going. Within the university structure, our question is really how to deploy the resources we have. Now I recognize there are some problems on the margin. The reason I went pounding the streets of New York was to try to get some of the free money to buy the coffee and do the other things the state budget doesn't quite cover—to explore our ideas, create new linkages, and get some transportation money. But that was small change.

What we really need are some bright ideas. If we need resources, and our ideas are really fresh, the legislatures will be more than willing to help direct resources that way. Our problem is that the public at large and legislatures are saying there is a crisis, and the schools of education have been very slow at even recognizing the need for change.

DR. PHILLIPS: Are there any figures that compare what Florida spends on the training

and education of a doctor to what it spends on the education of a teacher?

DR. NEWELL: Yes, I cannot cite them off the top of my head, but the figures are markedly different. The sciences and the medical education costs are the most expensive of the lot. I am not sure that is a fair way to go about it, because you have very different kinds of training and laboratory needs. I really do not think it is a question of skimping; it is a question of knowing where we want to go.

MR. SANDERS: I recall a study that showed that in Nevada we spent less per capita to train teachers in colleges of education than we did to educate elementary school students. I do not think that is unique in this country. I think I disagree with you somewhat, Barbara. Yes, some attention and demands should be focused on the schools of education. But the greatest problems and need for attention resulted from declining enrollments and the fact that the institutions are funded on a credit basis. This issue has probably received more attention than any other issue, at least in colleges of education of which I am aware.

DR. NEWELL: It is a crisis if you stay with the status quo.

MR. SANDERS: Even with the status quo, the colleges of education with which I am acquainted are not able to do what is expected of them with the resources they have now. We heard the evidence from student teaching alone, where the supervising teacher from the university campus is barely able to handle the logistics with student teaching, much less do the kinds of coaching that have been envisioned all along for that experience.

EUGENE M. HUGHES (President, Northern Arizona University): We have had the ability to reallocate resources, but there is generally pressure to put those resources into engineering, business, high tech, and other fields in which demand is great. Legislators and governors are supporting high tech all over the country. We are pressured to put money there. Generally, teacher education has suffered.

DR. NEWELL: You came up with a fresh idea and a million dollars. You did get support with a new idea. I think that is really where we are.

DONALD R. GERTH (President, California State University-Sacramento): In the California state system, teacher education would qualify as a low-cost program. Medical education in a public institution in California costs roughly fifteen times as much as teacher education. But like Dr. Newell, I am not sure that is the significant question. During the course of the week, Bill Honig and I have been talking about things we have learned from this. Inevitably, we begin to attach a dollar sign to some of these things. Were we to go home and decide for X, whatever that might be, it would cost a certain amount. If I went to our system and to the legislature and said, "Hey, we have a nifty idea," and someone thought it was nifty, I suspect I would get fiscal support. There is a perception across the land that teacher education is something important that needs attention. (I tend to think more on a university level than on a school or college level, because that is an occupational hazard, but I think it also conveys a message about how we perceive the teacher education responsibility.)

Our situation may be just a little different in another respect. We have employed twelve new full-time tenure-track faculty members and one lecturer in our school of education, doubling the size of our basic credential programs, and entailing some new appointments and some shifting of existing appointments. The question is, can we recruit? I will know the answer to that in another six weeks.

One of the things to which I really look forward is sitting down with those new faculty members, and, in essence, asking them what kind of world they would like to build as brand new teacher education faculty members. That goes beyond the question about the amount of money we are spending, but I am optimistic about our ability to get money if we know what the devil we want to use it for.

DR. NEWELL: I also warn you about making professional comparisons. I would bet that in most institutions law is cheaper than education.

MR. AMBACH: The major reform movements over the past couple of years in the separate states have committed resources to direct operations of elementary and secondary schools. Some resources have been directed towards recruitment efforts, but, by and large, the resource commitments toward reform in

the several states do not include increases for specific teacher education programs.

RICHARD KUNKEL (Executive Director, National Council for Accreditation of Teacher Education): A man named Bruce Peaseau at the University of Alabama has about eight years of fiscal data on teacher education. I could get a copy of that to your committee or the chiefs or anyone who is interested.

DR. BENTON: Let me get back to something Barbara raised. I am in agreement with the concept that it is good to have joint appointments and collegial relationships between teachers in public schools and the universities. That is difficult in a lot of our settings. There are 438 school districts in Iowa, twenty-six private colleges, and three state universities, and they are not always ideally located geographically. I want to promote that word "possible," but in those areas where that is not possible, can we get the universities to go more to the extension model, rather than have the schools go to them? Please comment.

DR. NEWELL: I am excited about the extension model, having spent twenty-five years of my life in the Big Ten schools. I am wedded to that outreach approach. It seems to me we have not learned as much as we could from extension divisions. The notion of shrinking our teaching force and going to a master teacher arrangement is one that we have heard and seen here and in national literature. I am very curious what the chiefs think about the feasibility of going in that direction. If we do, then we have an opportunity for a wedding between those master teachers and the schools of education and the university systems in a way that we do not presently have. Now we have a great many people trying to do more than is physically possible. I might mention that in our teacher education centers in Florida the state legislatures put money in the school districts, and the school districts concerned contract for services. It means that much of our delivery of continuing education is on-site.

MR. AMBACH: Jack's [Lawson] point about putting the funds for collaboration in Massachusetts into the school system is a way to drive the system.

DR. PHILLIPS: Going back to collaboration, are we closer to the point where there is strong support for that at the higher education level? When this shift began and the resources were placed in the hands of the consumer [the schools], the opposition was tremendous. I would hope that through collaborative effort we have come closer to getting strong support.

DR. NEWELL: My sense is that there is more support than there has been for a long period, but I will add one footnote. I would underscore the fact that those of you who are chief state school officers really should work with the presidents and not the deans of education. If you are going to use the full array of talents in the university, that is the only way. If you work with the dean, you are working through the person in the weakest negotiating position in the academic hierarchy. The real question in my mind is how many presidents do you have who are wedded to the notion of collaboration and who will really see the delivery of services? I think you who are chief state school officers have a real chance to change the academic climate at this moment.

ORRIN NEARHOOF (Mellon Project State Coordinator, Iowa): The role of the presidents in the Mellon Project was significant. Our project looked at the major issues talked about here: attracting and retaining teachers, preparation of teachers, teacher preparation and partnership, testing of prospective teachers, new certification structure, and preparation and certification of school administrators. The participation of a college president helped bring about media attention and the support of our governor, who put \$5 million in the budget to initiate a master/career ladder concept. We were able to get \$250,000 for this fiscal year (beginning July 1) to do a pilot demonstration project in testing all the juniors and seniors in teacher education this year in all Iowa institutions. We received a mandate from the State Board to develop a plan to attract and retain people in teacher education and some new requirements for the preparation of school administrators by January 15, 1986. The new standards require continuing education units for permanent certification. One of the key elements was picking a college president as chair, who was able to get a certain visibility and impact for our project that a college dean is not likely to generate. When we

had the final report of the task force of our State Board, we had four television commentators in the room. When our State Board asked us to develop proposed rules, we were tracked by the news media across the state. So, in essence, the presence of the college president was very important in generating the change we needed.

DR. NEWELL: We used one sneaky device. We asked every president in the state to write an essay on collaboration. So each one had to find out what was going on in his institution; second, he had to commit himself to it; and third, we gave him good public visibility for it. This was a centerpiece for a statewide conference in which we brought together the leading education legislators, Florida Department of Education administrators, deans, and university people. But it forced the presidents in the state system into major leadership roles and collaboration, and, in fact, all nine of them got involved in a way that had never occurred before.

MR. AMBACH: Let me return for a moment to the point made by Craig Phillips on the resource issue. Your question was whether the colleges and universities are now more receptive to the idea that the money for staff development or continuing education go to the school districts for teacher centers or directly to district-operated programs. There may be a little bit of a warming along those lines. I observe no great enthusiasm in the colleges to see the funds directed that way because the money is all coming out of the same state treasury. It is a trade-off issue. If funds go to the school district, then they may be taken away from what would otherwise be directed to the colleges and universities. While there may not be greater receptivity to these expenditures by colleges and universities, there is much greater interest from many legislators and governors for the simple reason that we have heard over and over this week. They want change. There is something that is wrong or can be corrected, and they are looking for ways to correct it. After all, the money has been flowing in the institutional-provider frame up to this point. Isn't it time to make a change and put the money in the pockets of the clients?

I see the change in our state. I sense we will see more and more resources going to the school districts or to teacher centers. I have

one last thought on the topic of legislation, be it the federal Higher Education Act or state legislation. We might be able to develop incentive financing so that when a "client" looking for inservice training goes to a college program, that decision triggers a matching grant to the institution. We would put a certain amount out for the program and say if you buy your service from the college or university for staff development or continuing training, then the college gets a match on top of how much gets bought. This is a double incentive for the university or college to provide service.

DR. PHILLIPS: There must be an investment in teachers as well as staff development to be truly collaborative. And that is the one I was talking about earlier, not necessarily the full-time employee investment, but a major look at what is invested in terms of salaries, the level of people attracted by those new positions, and so forth. These things go together. If a school system has \$500 for an individual development plan for a teacher, it should have a high calibre individual to buy it for. No question.

DR. NEWELL: One thing we tried in this particular budget year was to increase the dollars going into the public service portion of faculty salaries, and to try to keep the money in a

central pool with the designation that the services go purely for assisting the public school system, so that if a school said, "We would like someone in hotel management to look at our cafeteria, or somebody in business administration to look at our personnel system," then we would have monies available to help pick up that portion of faculty salaries wherever it was in the university system.

DR. KUNKEL: There are some interesting twists, Gordon, in the reform legislation in each of the fifty states. The flip side is that every state has a symbol in those legislative reforms indicating perceptions that that concept may have gone too far. So the intent was not always to put the money in the client's hand in the typical sense, but to give the client interaction with some system of accountability. And that really touches the theme of this speech, the theme of a state-integrated system.

MR. AMBACH: Let us leave this conference thinking big ideas, not with resolutions about how change may occur, but with challenging concepts.

I extend special thanks to our speakers for their excellent summaries on what has happened this week, their perspectives on how that links with the past, and their suggestions on focal points for the future.

Appendix A

Mellon State Projects and Coordinators

COLORADO

Analysis of teacher and student teacher evaluation models and development of evaluation instruments

Arvin C. Blome

Associate Commissioner for Federal Relations and Special Projects

Colorado Department of Education

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FLORIDA

Curriculum development, training for high school counselors, information dissemination, and monitoring to assist the four public high schools of the Gadsden County School District to meet new state standards and increase the college-going pool of black public high school students

Andrew A. Robinson

Director

Florida Institute of Education

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William Wharton

Director of Research

GUAM

Establishment of the Guam Department of Education/University of Guam Laboratory-Demonstration Elementary School

Ione M. Wolf

Deputy Director of Education

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IOWA

Revision of the basic state certification system and development of a plan for an integrated professional development system from preservice preparation through induction to continuing education

Orrin Nearhoof, Director

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Iowa Department of Public Instruction

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Des Moines, IA 50319

MAINE

Training of regional assistance teams of school, state, and university staff in design of school improvement activities, including application of research, collaborative planning, and assessment of needs and resources

Margaret Arbuckle, Coordinator

Comprehensive System of Personnel

Development

Maine Department of Education

Cultural Services

State House Station #23

Augusta, ME 04333

MISSISSIPPI

Development of a statewide mechanism for matching higher education resources with the inservice education needs of local school districts

Cindy Ward

Staff Consultant

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MONTANA

Improvement of state level on-site accreditation review process by involving representatives of higher education, K-12 teachers, and school administrators as well as the Office of Public Instruction staff as team members

Robert Anderson, Executive Assistant

to the Deputy Superintendent

Claudette Morton, English and L.A. Specialist

Office of Public Instruction

State Capitol

Helena, MT 59620

NEW YORK

Support of regional councils, representing school districts, colleges, and universities, in addressing teacher shortages, recruitment, and retention; dissemination of booklet on model collaborative efforts

Donald J. Nolan

Deputy Commissioner for Higher and - Professional Education

Cultural Education Department

Albany, New York 12234

NORTHERN MARIANA ISLANDS

A model project to facilitate cooperation between the Northern Mariana Islands Department of Education and the Northern Marianas College and to improve English instructional programs for elementary, secondary, and college students

Justo Quitugua

Acting Superintendent for Instruction
Commonwealth of the N. Mariana Islands
Department of Education
Saipan, CM 96950
John Rosario
English Specialist

OHIO

Articulation between secondary schools and higher education: a parent involvement component to inform parents of university requirements and assist parents in helping their children study and make decisions; a forum for counselors, administrators, university representatives, and parents

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OREGON

Implementation of a collaborative statewide support system for the continued professional development of school personnel

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Robert Gilberts
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University of Oregon College of Education

RHODE ISLAND

Implementation of a computerized feedback system for student achievement data and a series of regional workshops to facilitate working relationships between secondary and postsecondary education to improve high school curriculum.

Edward L. Dambruch
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Basic Education Program Unit
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VERMONT

Springboard Project to design and implement vocational and technical educational curricula spanning secondary and postsecondary education

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Everett Harris
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WYOMING

Coalition of personnel from the State Department of Instruction, seven community colleges, University of Wyoming, the Wyoming Education Association, and local school districts to identify needs and coordinate efforts; exploration of broader articulation questions within state regarding inservice training of teachers.

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Appendix B

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